

The Concept of Production (Herstellen) in  
Heidegger's Philosophy

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## ABSTRACT

### THE CONCEPT OF PRODUCTION (HERSTELLEN) IN HEIDEGGER'S PHILOSOPHY

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This thesis is a study of the term (Herstellen) as it applies to Heidegger's critique of traditional metaphysics and in particular to the outcome of traditional metaphysics, technology. The first chapter states and shows the support for Heidegger's claim that Herstellen or the productive comportment underlies and predetermines traditional metaphysics in that it provides the basis for the two fundamental concepts thereof, essence and existence. The second shows what Heidegger means when he says that Herstellen is more a way of revealing than a way of making. It also distinguishes the two senses of Herstellen: Herausbringen (techne as the Greeks understood it) and Herausfordern the modern variant. It is argued in the third chapter that Herstellen in the sense of Herausfordern is the basis of the manifold aspects of technology (Technik) and unifies the interpretation of those aspects.

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## LIST OF ABBREVIATIONS

BP	The Basic Problems of Phenomenology
DT	Discourse on Thinking
EB	Existence and Being
EP	The End of Philosophy
GM	The Way Back into the Ground of Metaphysics
GT	Early Greek Thinking
HCE	Hegel's Concept of Experience
ID	Identity and Difference
IM	An Introduction to Metaphysics
KPM	Kant and The Problem of Metaphysics
LH	Letter on Humanism
NI	Nietzsche vol. I
NII	Nietzsche vol. 2
NI Krell	Nietzsche I The Will to Power as Art
PD	Plato's Doctrine of Truth
PLT	Poetry Language and Thought
PT	The Piety of Thinking
Q	Questions IV
QT	The Question Concerning Technology
BT	Being and Time
TB	On Time and Being
WCT	What is Called Thinking
WL	On the Way to Language
WM	What is Metaphysics?
WP	What is Philosophy?
WT	What is a Thing?

# THE CONCEPT OF PRODUCTION (HERSTELLEN)

## IN HEIDEGGER'S PHILOSOPHY

### INTRODUCTION

To think Being(Sein) without beings(Seiende) means: to think Being without regard to metaphysics. (TB 24)  
Time and Being

It is this goal which all Heidegger's work serves, including his critique of metaphysics. This thesis deals with metaphysics with emphasis on its outcome as worked out in that critique. Hence, throughout we will have as our subject metaphysics, that is, a way of thought which according to Heidegger does think Being through beings or as the ground of beings. This involves an account of Heidegger's critique of traditional metaphysics: of the way philosophy has attempted to grasp and account for its prime subject matter, Being. In broad outline Heidegger claims that philosophy, unbeknownst to itself, has, from Plato onward interpreted Being from the standpoint of the productive comportment or production. He argues this in The Basic Problems of Phenomenology where he shows that the two concepts, essence and existence, which between them encompass philosophy's understanding of Being, are based on the productive comportment. Work or labor are more familiar names for the productive comportment. But these terms are somewhat misleading because the emphasis Heidegger puts on production (Herstellen) is not the emphasis customarily placed on labor where it is understood as 'making' and as one activity among others; rather Heidegger understands Herstellen as 'revealing'. The ultimate consequence of a metaphysics being based on the productive comportment is the end of philosophy. Heidegger explains this in the following way:

The end of philosophy, proves to be the triumph of the manipulable arrangement of a scientific-technological world and of the social order proper to this world.  
(TB 59) The End of Philosophy and the Task of Thinking

This means that,

The whole objective inventory in terms of which the world appears is given over to, commended to, and thus subjected to the command of self-assertive production. (PLT 111)  
What are Poets for?

This thesis aims to characterize the meaning of Herstellen in Heidegger's philosophy particularly as that term is applied in his critique of traditional metaphysics and contemporary metaphysics or technology (Technik). This requires that two related matters be emphasized, the meaning of Herstellen or production and the meaning of modern technology as understood by Heidegger. The latter is approached via the former. There are three parts marking the three steps required to accomplish this: first, the relationship between the productive comportment and metaphysics is characterized; second, there is an attempt to determine the meaning of the key term in the thesis, Herstellen; and finally, it is shown how technology (Technik) can be interpreted as Herausfordern, a particular form of production.

The first chapter attempts to clarify the meaning of Herstellen as it relates to the practice of metaphysics. Heidegger's view is that all traditional metaphysics is based on the productive comportment (Herstellen). He supports this claim by showing that metaphysics has elaborated its various doctrines of Being through the medium of the key concepts of essence and existence. He traces these concepts to and derives them from the productive comportment. The basic consequence of this is that metaphysics, first philosophy, starts out on its way with a bias towards doing, effecting, and forming things. This bias determines its whole subsequent orientation and thus its orientation towards its

fundamental concern: Being.

An important implication of the fact that metaphysics is grounded on production is that Being is grasped as something for use and manipulation. A related and for our purposes an even more important consequence is that what is real, Being, is understood as what has orderable consequences and results, that is, as 'effect' and as what has effect. These characteristics are fully realized in the end of philosophy.

The second chapter concerns itself with the meaning of Herstellen placing emphasis on two features of the term as Heidegger uses it, features which distinguish it from ordinary use. The first is that Heidegger takes production not only as making or creating but, and it is here that he places the stress, as a kind of revealing or truth. The account of this feature of Herstellen requires a short account of Heidegger's theory of truth and of the ways in which truth has come about in the past according to Heidegger. Among those ways are physis and techne. Clarification of these matters helps to show how Heidegger means Herstellen to be understood and also provides some related phenomena against which to contrast it. The second feature emphasized is the unusually broad meaning Heidegger attributes to Herstellen, so that it embraces many phenomena we would not ordinarily term production.

Chapter three is an account of the phenomena essential to Heidegger's idea of modern metaphysics or technology. Each of the relevant phenomena is characterized and its place in the whole is determined. The aim is to show how each phenomenon comprising technology either facilitates production or actually is production in the modern sense of that term, namely, Herausfordern. This amounts to the interpretation of technology as production in the sense of Herausfordern.

The aim of the last chapter is to show what Heidegger means by technology. There is however no attempt to carry this out fully.

Heidegger's discussion of technology is complex and many-faceted. Some of these facets will receive extensive treatment here, others only a mention, still others will be passed over. The main subject is technology and the phenomena which accomplish its rule e.g. the subjectum, the will to will, mathesis etc. Less attention is paid technology understood as a destining (Geschick) of Being and the related problem of the character of Being as sych.

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<sup>1</sup>Quotations and references to Heidegger's works cited in the thesis are identified in the following way: (TB 24) Time and Being. The capital letters designate one of the texts in the List of Abbreviations; the number refers to the page on which the quote or reference is to be found. If there are words following the brackets they refer to an essay in that text. When the citation or quotation occurs within text of the thesis the essay title is bracketed separately.



## CHAPTER I

### HERSTELLEN AS THE BASIS OF METAPHYSICS

#### INTRODUCTORY REMARKS

The first matter to be discussed is the conception of Being (Sein) prevalent in metaphysics and the claim that Being is invariably understood or interpreted in traditional metaphysics through entities (Seiende). Clarification of this will require some reference to Heidegger's own conception of Being. The second part examines in greater detail the question of how metaphysics grasps Being. The third section describes the essential elements of the productive comportment and presents Heidegger's claim that the metaphysical conception of Being models itself on the understanding of Being implicit in the productive comportment.

#### THE METAPHYSICAL ATTITUDE

The fundamental relation of man to Being upon which, according to Heidegger, all other relations are based is characterized below:

Being is present and abides only as it concerns man through the claim it makes on him. For it is man, open toward Being, who alone lets Being arrive as presence. Such becoming-present needs the opening of a clearing, and by this need remains appropriated to human Being. (I&D 31)  
The Principle of Identity

Heidegger claims that Being is dependent on man: that man is needed for Being to be present. This dependency on man in Heidegger's view has often been detrimental to Being particularly in metaphysics which concerns itself precisely with the problem of Being. While the metaphysical

attitude is one of man's most intimate characteristics. Much of his thinking on metaphysics; hence its relation to Being, appears distorted.

In the history of western thinking, indeed continually from the beginning, what is, is thought in reference to Being; yet the truth of Being remains unthought, and not only is that truth denied to thinking as a possible experience, but western thinking itself, and indeed in the form of metaphysics, expressly, but nevertheless unknowingly, veils the happening of that denial. (QT 56)  
The Word of Nietzsche

'What is' is thought in reference to Being in the following way. Being is understood as what gives any entity (Seiende) its reality, it is understood as what is essential to that entity and to all entities, and Being is understood also as the highest being, as the ultimate cause of the existence of whatever entities there are. (I&D, pp. 42-76) (The Onto-Theo-logical Constitution of Metaphysics) Although the role of Being is fundamental in the account metaphysics gives of what is, the truth of Being itself remains unthought due to the metaphysical attitude. If this is so the account metaphysics gives of Being must be false. But it is precisely by providing an account of Being that metaphysics obscures the fact that western thinking has never succeeded in coming to terms with the problem of Being. The fact that there is an account leaves the impression the problem is solved, so that no effort is made to correct the situation. What, in Heidegger's view, are the essentials of this account?

Historically, metaphysics has applied many names to what Heidegger designates as Being: the logos, the all, idea, ousia, energeia, substantia, and so on up to the will to power and the eternal recurrence of the same. (TB 7) (Time and Being) In Being and Time (pp. 22-23) Heidegger lists three presuppositions, rooted in ancient ontology and common to subsequent metaphysics, which have ensured that no radical account of Being could take place under the auspices of such a metaphysics. They

are: that Being is the most universal concept, that this concept is indefinable, and that it is self-evident. Being, in the first place applies to anything that is. If one knows any entity then one knows Being. Being is indefinable because it cannot be derived from higher concepts by definition, nor presented through lower ones. It is held to be self-evident because the word that names it is in common use in even the simplest phrases. Metaphysics has conceived of Being in different ways though it has been conceived under many different names, Heidegger claims there is a fundamental sameness to all the conceptions. All traditional metaphysics thinks Being as presence, as the presence that persists: the steadily standing now. What this presence means in more detail is the following,

If all metaphysics thinks of Being as eternity and independence of time, it means precisely this: the idea of beings sees them as in their Being independent of time, the idea of time sees time in the sense of a passing away. (WCT 102)

The quality common to all the ways metaphysics has conceived Being is permanent presence- meaning that Being stands unchanging out of time. Heidegger takes this to be the view of traditional metaphysics. He disputes this view in every detail, the sole matter of presence excepted. He agrees that Being has the quality of presence, but he interprets presence differently and for the first time broaches the question of the sense in which Being is not present, a matter which, he tries to show, is as essential to the question of Being as the question of presence is.

...Being is not an existing quality of what-is, nor, unlike what-is, can Being be conceived and established objectively. This, the purely 'Other' than everything that 'is' is that-which-is-not(das Nicht-Seiende). (EB 353) What is Metaphysics: Postscript

Heidegger attributes the misunderstanding of Being upon which traditional metaphysics is founded to the fact that man "... is turned only toward what is present and to the existent presenting of what is present." (TB 71) (The End of Philosophy and the Task of Thinking) and that presence as such remains unheeded. What is present is beings, (Seiende), and so, according to Heidegger, the misunderstanding of Being originates in an understanding of it from the standpoint of whatever things exist at a given time. The process is less vague than the preceding sentence implies. The limits of realms of phenomena and the character of entities therein are determined by human needs, concerns, and interests which themselves are ultimately determined by man's understanding of Being. The realm of navigational phenomena is set apart and determined as to its character by the need to find one's way about. The types of entities generated by that need may change, for instance, from entities perceptible to the senses to mathematical entities or to a combination of the two. Thereby the notion of what is real in a thing might also undergo some alteration.

Every region of objects, according to its subject matter and the mode of Being of its objects, has its own mode of possible disclosure, evidence, founding and its own conceptual formation of knowledge. (PT 6) Phenomenology and Theology

One cannot speak of ancient metaphysics having possession of bodies of knowledge and methods as sophisticated as our own, but it did have organized bodies of mathematical, astronomical, and manufacturing knowledge and it is via these organized ways of dealing with specific realms of entities that Heidegger claims the metaphysical idea of Being originated.

Heidegger's opposition to traditional metaphysics is summed up in his own words:

It (metaphysics) starts from the essent and is oriented toward it. It does not start from being(Sein) and does not enter into the questionable nature of its manifest-ness. (IM 86)

It starts from beings and concerns itself with them alone. Can we call what it recovers thereby, Being? Heidegger's philosophy requires that the idea of Being conceived as a cause of beings or as what is real in them has to be abandoned. The goal of metaphysics has to be our

... inquiry beyond or over beings which aims to recover them as such and as a whole for our grasp. (WM 109)

Only then, he believes, can a proper conception of Being be developed.

(TB 6) (Time and Being) Metaphysics fails to adequately treat the question of Being as long as it,

...does not ask about Being as Being, that is, does not raise the question how there can be presence as such.  
(TB 70) The End of Philosophy and the Task of Thinking

Traditional metaphysics was unable to ask that question. As a consequence any attempt to think Being is required to avoid the path of traditional metaphysics (TB 24) (Time & Being) that is, to avoid forming an account of Being solely on the basis of existent things and our attitudes, general or selected, towards those things. Such an approach gives a biased account of entities that are present because it never examines the problem of presence (Being) as such.

#### METAPHYSICS GRASPS BEING THROUGH THE CONCEPTS OF ESSENCE AND EXISTENCE

The Greeks, according to Heidegger, understood Being originally as ousia or "more fully" parousia. (IM 61) To this Heidegger equates the German term Anwesen, or presence, which also designates an estate or

homestead. The meaning common to both terms is something "...standing in itself or self-enclosed."

Something is present to us. It stands steadily by itself and thus manifests itself. It is. For the Greeks 'being' basically meant this standing presence. (IM 61)

There is no reference in this original conception to how long Being stands but only to the fact that it stands and to how it stands: by itself and within the limits proper to it. This original meaning underwent a change, one that was to determine the basic orientation of traditional metaphysics for good. Through a shift of the meanings of physis and logos (IM 75-206) whereby they became idea and statement, a shift based on the transformation of the essence of truth from unconcealment (aletheia) to correctness of representing, ousia came to mean permanent presence.

It (ousia) signifies Being in the sense of permanent presence, already-thereness. What actually has being is accordingly what always is, aei on. (IM 193)

In its new meaning ousia becomes what is always there prior and subsequent to any given time: the permanent. This interpretation of Being is based on time, to be specific, on the present (KPM 248-250) or the 'now' which is constantly present.

Ousia, that which is in the strict and proper sense, is what is in its own self available, produced, present constantly for itself, lying present there, hypokeimenon, subjectum, substance. (BP 148)

Ousia means permanent presence and this represents the highest accomplishment of metaphysics in grasping Being. Socrates and Plato, Heidegger says, think the essence of something as what comes to presence, but for them too, what presences and endures, endures permanently,

And they find what endures permanently in what, as that which remains, tenaciously persists throughout all that happens. That which remains they discover, in turn, in the aspect (Aussehen) (eidos, idea), for example, the Idea 'house'. (QT 30) The Question Concerning Technology

The idea of Being common to metaphysics from Plato and Aristotle on, is characterized by Heidegger in the term 'permanent presence'. This idea conceives Being as what underlies all change but does not itself change: as the constant, as what is indestructible and endures eternally. It is what is other than becoming or appearance and is what is really real in whatever happens to be. The metaphysical terms for Being-idea, energeia, substance, etc. all designate permanent presence, a deviation from the original meaning of ousia which is simply 'presencing'. Standing at the basis of all happening this 'Being' is constant, whether as a constant process or as a constant something. The metaphysical understanding of ousia, Heidegger holds, is subsequently transferred to the concepts of essence and existence. 'Essence', he says, is the literal translation of the debased sense of ousia and 'existence' is also to be interpreted by way of ousia. (BP 109) This is how the metaphysical idea of Being is encompassed in what the two terms, essence and existence designate.

Essence is the same as form, thingness. It is what gives Being to a thing: what makes it real and what makes it the thing it is. The meaning of essence is thus the same as that of eidos.

The eidos as the look, anticipated in imagination, of what is to be formed gives the thing with regard to what this thing already was and is before all actualization. (BP 107)

In this sense the Being of a given thing, what is real about it, pre-exists it. The Being or essence is what the thing really is for it is the eidos that is real about the thing, that determines it as complete. Other determinations belonging to becoming or appearance are not essential to it. The essence, exemplified by eidos, is what is real about something whether that something exists or not. It identifies a thing as what it

is and it is to the essence that we look to determine whether a thing really is what it seems to be. Essence as ousia possesses the qualities of the latter, specifically, that of permanent presence. 'Existence' refers to whether a given thing is present and how one ascertains its presence.

The verb einai, esse, existere, must be interpreted by way of the meaning of ousia as the disposably present-at-hand and that which is present (as property and premises are present). (BP 109)

Traditional philosophy, according to Heidegger, asserts that we come across the existent via perception. Heidegger terms what is grasped by perception Presence-at-hand (Vorhandenheit). What perception (das anschauende Vorfinden) grasps is existence and it does so in the way that property and premises are grasped- as standing and available for use.

The term existence or the extant,

...is somehow referred by its sense to something for which, as it were, it comes to be before the hand, at hand, to be handled. (BP 101)

#### THE METAPHYSICAL CONCEPTION OF BEING MODELED ON THE PRODUCTIVE COMPORTMENT

Heidegger asserts that essence and existence, the concepts which articulate the idea of Being in metaphysics, are based on what he calls the productive comportment. (BP 99-121) Heidegger explains it this way,

We shall try to shed some light on this obscurity, to explain the origin of the concepts essentia and existentia, and to show how far the two concepts are derived from an understanding of being that comprehends beings with respect to an actualizing or, as we say generally, to a productive comportment of Dasein. (BP 105)

The productive comportment is the way man acts when making something



in the sense of making simple household items like pots or of making a house for instance. Descriptions of making can be found in the essay The Question Concerning Technology (QT pp 3-35) where Heidegger discusses the doctrine of the four causes. In this doctrine causa materialis is the material cause, the matter out of which the thing is made. The causa formalis is the shape which the thing enters. The causa finalis is the end for which the thing is made and the causa efficiens is what brings the particular thing about, so that it exists. Anything which is made is made out of something; it is made into a given form or shape, which shape has a purpose. Heidegger's interpretation of the doctrine of the four causes, particularly his interpretation of the causa efficiens differs from the traditional view. Tradition sees causality as what brings something about; in this regard the causa efficiens is particularly important. The traditional view, Heidegger claims, hinges on a misunderstanding of what the Greeks meant: the key, he says, is not 'bringing about' but 'being responsible for':

The four causes are the ways, all belonging at once to each other, of being responsible for something else. (QT 7) The Question Concerning Technology

As the material out of which the chalice is made, the silver is 'co-responsible' for it. The form or eidos of chalice is responsible for the chalices's being a chalice and not a ring. The final cause is responsible as what confers the specific meaning on the vessel, rendering it 'sacred'. Finally, he says, the silversmith is responsible for gathering together the other three causes by considering them carefully and then bringing them into appearance; but he is not the causa efficiens in the sense traditionally given that term. (QT 8) <sup>a</sup>(The Question Concerning Technology) He is rather what, through careful consideration of what we might call its

meaning, brings the thing into appearance in the way appropriate to it. The smith is responsible, then, for its presencing in the way that it does. He shares responsibility with the other three causes. The fourfold causality, as interpreted by Heidegger, is not a mere occasioning where one thing strikes another and releases something in that second thing; it is, rather, a way of bringing something which is not yet present, into presence. It is, then, a kind of poiesis or bringing-forth (Her-vor-bringen) (QT 10) ibid. The meaning of poiesis and consequently of Hervorbringen is dealt with in the second part in the discussion of Heidegger's theory of truth. Traditional metaphysics abandons this complex understanding of causality or never takes it up.

With regard to the derivation of essence and existence from the productive comportment two matters are of central importance: the causa formalis or the shape into which the thing enters and the causa efficiens or the working which brings the thing into being. Heidegger concentrates on these two matters in his account of the productive comportment or production (Herstellen) under the name of 'image' and of the working needed to actualize the image.

All production is based on the image, model, or intention which comprises what one intends the produced thing to be.

The thing is produced by looking to the anticipated look of what is to be produced by shaping, forming. It is this anticipated look of the thing, sighted beforehand, that the Greeks meant ontologically by eidos, idea. (BP 106)

The 'look' or idea presents the thing to be produced with regard to what it was and is before actualization. As something planned or intended it is already there, free of imperfection, changeless; and as possessing the real determinations of the being it constitutes its finishedness. (BP 108) It is the qualities attributed to the image which

are subsequently regarded as what is real about the thing. The image is preexistent, free of imperfection and changeless. The idea of eternal presence, then, is modeled on the image. Any produced thing is the result of a process, hence understanding it involves an account of how it came to be. The subjects of this account are the material out of which the thing was made and the process of making it, of turning the material into the item in question in accordance with the image or model.

The image or model of the productive comportment founds the philosophical notion of essence, while acquaintance with everyday objects founds that of existence and the considerations touching upon it. Heidegger comes to this conclusion through his analysis of ancient, medieval, and modern philosophical concepts and their history which shows that the constituents of the productive comportment are taken up into the fundamental concepts of metaphysics in a significant way. Essence, e.g. eidos, Heidegger claims, is founded on the image or look of the productive comportment. Aside from the linguistic evidence (BP 99-112) there is the similarity of function and characteristics to be noted in the two. The 'look' is what is real about the produced thing both before and after it has been made. It is the intended result, the model on which the thing is based and what the making tries to approximate. When 'put' into the thing it makes it what it is. It is what we measure the thing against to determine whether or not it is what it is purported to be. The real character of the product derives from the model on which it is based. What is designated by the term essence functions in just this way. The characteristics it has as permanent presence are, it seems, more thoroughly worked-out qualities deriving from the 'look' or image, and the qualities of things in the present or now in which the act of

making takes place. Heidegger says,

That which precedes all actualization, the look that provides the standard, is not yet subject to change like the actual, to coming-to-be and passing-away. It is also earlier than the mutable thing; and as being always earlier, that is, as what a being-always conceived of as producible and produced- was already beforehand, it is what is true in and of the being of a being.  
(BP 107)

Existence, being actual, is traditionally interpreted in terms of our finding the thing in question present: perceiving the thing. This perceiving is understood as a kind of seeing thus referring it back to the seeing which guides production, the seeing of the image. (BP 110) This is no pure seeing of what is there. This seeing involves a point of view which aims at doing something with what is seen: organizing it. Hence it is based on our relation to objects of use.

With the above arguments Heidegger shows that the concepts of essence and existence and thus the metaphysical conception of Being are derived from an understanding of Being taken from the understanding that belongs to Herstellen or the productive comportment. His argument, he admits, is an outline, and yet for all that, convincing. (BP 105) He concludes that traditional ontology is naive because in elaborating its concepts it is never aware that they originate in a common way that man/Dasein has of behaving toward things. As a consequence of originating in the productive comportment these concepts embody qualities appropriate to the latter, which concepts, when applied to the totality of what is constitute a misinterpretation of it. Because traditional metaphysics is unaware of the origin of its guiding concepts it is also unaware that instead of unveiling the real it is ordering Being for the ultimate purpose of producing everything.

## THE IDEA OF BEING IN METAPHYSICS

Essence and existence render up the real in terms of how it is, what causes it, what sorts of things may and may not happen to it, whether and how it can combine with other things. The real, permanent presence, the Being of metaphysics, is what underlies all change, or what is constant in change as the ordered way in which change take place. It is indestructible, enduring eternally. What is essential is that the Being of metaphysics, in being exhaustively worked out with respect to what it is, has been delivered up and made available: it is eminently suited to whatever manipulations need to be made with it. It displays the thing as a bare something ready to be used, by delivering up the abstract usability which can be exhaustively known, arranged, looked at, combined, changed: which can be manipulated in the widest possible variety of ways which are worked out in the rules describing the behavior of the thing. The claim is that in the metaphysical idea of Being what is articulated is the usability of Being or things. If this is so it would seem to point back to the implicit understanding of Being in the productive comportment: Being as a matter to be manipulated and used. The productive comportment is found to further inform the metaphysical idea of Being by tacitly presenting it as material for use and as material caused (produced). This further supports Heidegger's contention that metaphysics is based on the productive comportment. The last chapter will take up this thread once again and show how the tendency inherent in the metaphysical interpretation of Being is to a more and more complete working out of the conditions of usability. This is

accomplished in terms both of the matter worked upon and the operations carried out on it. The tendency leads directly to modern technology.

The argument of Heidegger outlined above, that the global conception of Being in metaphysics is modeled on Dasein's comportment towards a single realm of entities, is just a more precise rendering of Heidegger's oft-repeated claim that in metaphysics Being(Sein) is grasped through entities(Seiende). This means, that a comportment appropriate to a particular realm is used to provide the perspective through which the whole is understood bringing in its train unanticipated consequences, hence the danger. This event of traditional metaphysics constitutes a false interpretation (Auslegung) of what is, and of Being.

## CHAPTER TWO

### THE MEANING OF HERSTELLEN

#### INTRODUCTION

We now try to clarify the meaning of the productive comportment (Herstellen) which has been shown in the first chapter to underlie traditional metaphysics.

There are three major difficulties in understanding the sense Heidegger attaches to production. Production is for Heidegger a way of revealing, hence, in the first place its meaning does not center only on making or manufacturing things. Secondly, it has two meanings which are distinguishable mainly in how the revealing takes place. Thirdly, as a consequence of this new meaning of production as a way of revealing, a way that things show themselves and are grasped, it can apply to all entities and not just those which are strictly speaking 'made'. Since, Herstellen is for Heidegger a way of revealing (QT 12) (The Question Concerning Technology) it is also linked with unconcealment (aletheia) which is central to Heidegger's theory of truth. According to Heidegger, truth among the early Greeks was manifested in physis and techne. The account of physis and techne will show that something can appear entirely on its own terms or be understood to appear as such (physis). This will be contrasted to techne and the modern sense of Herstellen. Techne reveals a thing partly as the result of doing and partly as standing on its own account.

Due to confusions adhering to the term Herstellen we attempt to

clarify the relations between techne, the productive comportment, and Herstellen. There is confusion, for example as to whether Herstellen is the same as techne and whether it is also the 'production' Heidegger refers to when characterizing modern metaphysics.

#### HEIDEGGER'S THEORY OF TRUTH

Heidegger's discussion of truth centers on two matters: that something is and how it is. Traditionally these are the subject matter of metaphysics or ontology. Since techne, physis, and Herstellen are modes of aletheia, unconcealment, they are not, then, merely an aspect of something, but rather what is fundamental about it: that is, what and how the thing is.

Heidegger says of truth:

At first truth meant what was wrested from a hiddenness. Truth is just such a perpetual wrenching-away in the manner of uncovering. (PD 260)

This uncovering is unconcealment. It is unconcealment which first grants "...Being and thinking their presencing to and for each other." (TB 68) Therefore unconcealment and presencing go together. (GT 55) (The Anaximander Fragment) The question now is how unconcealment and presencing occur.

There is, Heidegger asserts, an open center or clearing (Lichtung) which is to a greater degree than beings because the latter can only be in this clearing. It grants access both to what we are (Dasein) and to what we are not (beings). (PLT 53) (The Origin of the Work of Art) The clearing is not to be conceived in terms of something that is there, e.g. as statement, or property, or thing, it is rather that something is



there. The 'clearing' perhaps just names that fact that there is apprehension or encountering. The clearing can also conceal so that a being appears as what it is not by appearing inappropriately in terms of another being or realm of beings. (PLT 53-54) (The Origin of the Work of Art) One being may obscure another by being the one that we, for whatever reason, choose to concentrate on, thereby losing perspective.

That there is Being, and as a consequence, facts, experiences, representations, appearances, things and true and false propositions is dependent on there being unconcealment. Referring to Plato, Heidegger notes that thinking must think presence (Being) as unconcealment before it can think it as idea. (GT 56) (The Anaximander Fragment) And there must be unconcealment before there can be things.

Not only must that in conformity with which a cognition orders itself be already in some way unconcealed. The entire realm in which this 'conforming to something' goes on must already occur as a whole in the unconcealed; and this holds equally of that for which the conformity of a proposition to fact becomes manifest. (PLT 52) The Origin of The Work of Art.

Aletheia or unconcealment is what Heidegger takes to be the essence of truth. Truth, as the possibility that there is something, allows presence or Being to be present. Truth, then, as unconcealment, is as fundamental as Being. Were it not for truth Being as presence could not be. Man usually grasps presence as entities in some particular manner: as physis, as thing, as substance or as something produced. The way he grasps presence hinges on his understanding of Being which is expressed in the way he behaves towards beings: his comportment towards them. He may behave toward Being or an area of beings as something to be understood, or as something to be taken care of or as something produced. His way of comporting himself is dependent of his understanding.

which is dependent of what is, unconcealed for him of Being.<sup>1</sup> When he grasps a thing as produced man behaves towards it as produced. Its characteristics as produced are its basic ones and constitute its Being. They are not something more or less inessential which is added on to more basic qualities, rather they determine what the thing is.

#### PHYSIS AND TECHNE: KINDS OF TRUTH

Unconcealment or truth can happen in different ways: e.g. as physis or techne. Man's understanding of Being insofar as it restricts itself to realms of entities and does not go beyond them to explore presence as such, is dependent on what is unconcealed. Physis and techne are two of the ways, Heidegger contends, the ancient Greeks understood truth (aletheia) as coming about. Hence they are two ways in which the relationship of man and Being took place. They are included here in order to introduce the discussion of production with a closely related theme and to provide instances of modes of revealing/ unconcealment with which to contrast production. Unconcealment is made concrete in techne and physis in terms of its qualities. Thereby, differences which may, failing an example, seem trivial, are shown to be of major importance.

Translating Plato, Heidegger writes, "Every occasioning for what ever passes over and goes forward into presencing from what is not presencing is poiesis, is bringing-forth. (Her-vor-bringen)" (QT 10) (The Question Concerning Technology) Among these Heidegger includes not just art but physis.

Physis is, indeed poiesis in the highest sense. For what presences by means of physis has the bursting-open belong-

ing to bringing-forth, e.g. the bursting of a blossom into bloom, in itself. (en heatoj) In contrast what is brought forth by the artisan or the artist, e.g. the silver chalice, has the bursting belonging to bringing-forth not in itself, but in another (in alloj) in the craftsman or artist. (QT 11)  
The Question Concerning Technology<sup>2</sup>

Heidegger takes poiesis as the basic mode of revealing among the Greeks.

Poiesis is not necessarily modified by any human perspective, for the clearest instance of it is physis, wherein a thing comes to be solely in terms of itself and not, e.g., in terms of the grasp the artisan has of the thing he is making or in terms of the material the thing is being made of. The medium through which a thing appears can qualify whatever appears in specific ways dictated by the nature of the medium, e.g., the concept qualifies what it grasps making the content clear, making the content repeatable, and making its relations to other concepts more explicit; painting requires that emotions appear in terms of colors and forms.

Poiesis (Hervorbringen) bringing-forth, is the way, according to Heidegger, in which unconcealment or truth happened among the Greeks. The term, as our account of the two types (physis and techne) shows, has implications of bringing something out which is already there in some sense or of bringing something out in a way appropriate to it. Physis is the first Greek word for Being "...in the sense of the presence that emerges of itself and thus holds sway." and it means, "...unfolding itself and showing itself out of itself." (NI Krell 181) Physis, then, is something understood as 'beyond' in the sense of not being amenable to alteration by our perceiving, not accomodating itself to our perceiving. Techne is related to physis as a knowledge man has of Being, of physis, and which he employs to establish himself in physis.

...if he proceeds to master beings in this or that way, then his advance against beings is borne and guided by a knowledge of them. Such knowledge is called techne. (NI Krell 81)

In particular it designates the knowledge that grounds mastery over beings in which new beings are produced "...in addition to and on the basis of..." (N I Krell 81) what has already come to be. Instances of techne are utensiles and artwork. It is a kind of poiesis, of bringing-forth, but with limitations, unlike physis.

Techne is a mode of aletheuein. It reveals whatever does not bring itself forth and does not yet lie before us, whatever can look and turn out now one way and now another. (QT 13) The Question Concerning Technology

This bringing-forth happens in terms of the four causes. The aspect and matter of a thing e.g. a bridge, are brought together beforehand and determine how it will be constructed (what the thing is, is, as it were, put into it): "...what is decisive in techne does not lie at all in working and manipulating nor in the using of means, but rather in the aforementioned revealing. It is as revealing, and not as manufacturing, that techne is a bringing-forth." (QT 13) (The Question Concerning Technology) It produces beings in a characteristic way and involves "...the initial and persistent looking out beyond what is given at any time." (IM 159) This gives the essent its determinateness and limit.

Techne is a deliberate producing. (IM 16) It conceives the Being of a thing whether it is present at the time or not and sets it into the thing in the producing so that the thing can be the thing that it is. Thereby it reveals "...in the manner of a knowing guidance of bringing-forth." (NI Krell 82) For Plato techne means in addition care, melete. This characterizes the forward-looking disclosure of Dasein "...which seeks to ground beings on their own terms." (NI Krell 165) Physis is a happening understood as taking place outside any influence-

the occurrence of something on its own terms and not on the terms of anything else.<sup>3</sup> It was originally understood to include all phenomena and not just natural phenomena. Physis, like techne, is a kind of poiesis or bringing-forth (Hervorbringen). Techne is a making, a using, or a putting to work of things, founded on a knowledge of those things derived from physis and our involvement therein. Techne is a human involvement in physis, where some knowledge is taken up and put to work in physis.<sup>4</sup> This knowledge is of the self-enduring physis, and it arranges its materials taking its guidance from the thing it is to make.<sup>5</sup> As producing it is still in a real sense only heeding the Being of the thing in order to make it in the most appropriate fashion. It is less a making than a guiding of something in its coming-to-be.<sup>6</sup> Hence, making, production, is secondary to a revealing which shows the thing as it is.<sup>7</sup> Techne differs from physis in having passed through the medium of human perception, needs, doings and activities and of then making or arranging the thing in accordance with an understanding of those terms and an understanding of the nature of the thing itself.

Physis and techne are kinds of poiesis. Two distinct realms are separated out in these words; one, in which things occur in themselves, and the second which responds to the first and works upon it guided by human need. The central change, coming with the ever greater encroachment of Herstellen in the second sense, is the abolition of this distinction. Herstellen in the modern sense, implicitly it is true, for its aims are nowhere stated, abolishes any realm outside human grasp: in fact it defines Being as what is articulable within the patterns created by representational thinking. But that is not all. This transformed Herstellen also works outside the limits of human need, of techne,

and is directed instead by the dictates of production as such.

## TWO SENSES OF HERSTELLEN

The meaning Heidegger assigns Herstellen differs according to whether he is speaking of techne, the productive comportment, or the frenzied production that is modern technology. He provides the basis of this distinction in The Question Concerning Technology (QT 10-15). The distinction centers on the way productive revealing takes place, whether in the sense of bringing-forth (Hervorbringen) or challenging-forth (Herausfordern).

Techne is a knowledge stamped with human needs and attitudes on the one hand but a knowledge that also permits the thing a dignity of its own:<sup>8</sup> a kind of compliant knowledge corresponding to a revealing which is in terms of human needs and requirements but which does not seek to produce merely for the sake of producing.

The possibility of all productive manufacture lies in revealing. (QT 12) (The Question Concerning Technology) There could not be anything if there were no revealing, so there could be no productive manufacture either. The term 'revealing' also designates different ways in which something can be e.g. as physis or as techne. Production is a revealing "...in the sense of poiesis... it lets what is present come into unconcealment." (QT 21)(The Question Concerning Technology)

Under the term poiesis or bringing-forth stand kinds of revealing ranging from physis to techne. What qualities of Herstellen permit it to be included among these ways of revealing? The principal one is that it brings something into being, not in itself, as physis does, but in a

a way peculiarly appropriate to the thing, as does techne, by bringing the thing into the realm of human making and concern, the 'Her' of Herstellen.<sup>9</sup> This leaves little to distinguish it from techne. It seems, based on the preceding account of the productive comportment which stands at the basis of both metaphysics and techne that the two are similar if not the same. There are no differences except that Herstellen in the sense of the productive comportment is a term of Heidegger's and techne is a more ancient term. But techne is certainly different from the kind of Herstellen which is the main subject of this thesis.

Herstellen, then, has two senses. One of these is techne, a variety of bringing-forth that has already been discussed. The production on which Heidegger bases metaphysics (essence and existence), that is, the productive comportment, is also equated with techne. (QT 13) (The Question Concerning Technology) It shares the features of techne, in particular the essential feature of a compliance which permits the thing to be what it is even though it is crafted from the standpoint of human needs.

The production that Heidegger says determines the character of modern metaphysics is the second sense of Herstellen. It shares qualities with the first and originates in it but is distinguished from it mainly in that it is a producing for the sake of producing or a producing that measures the object solely from the standpoint of a more and more efficacious producing and no longer in terms of how it serves human needs and allows the participation of the different realms.<sup>10</sup>

What is modern technology? It too is a revealing. Only when we allow our attention to rest on this fundamental characteristic does that which is new in modern technology show itself to us.

And yet the revealing that holds sway throughout modern technology does not unfold into a bringing-forth in the sense of poiesis. The revealing that rules in modern technology is a challenging (Herausfordern), which puts to nature the unreasonable demand that it supply energy that can be extracted and stored as such. (QT 14) The Question Concerning Technology

According to Heidegger, in the revealing appropriate to modern technology, man puts the question and makes the demand that a predetermined something come forth. The distinction from Herausbringen where something present is brought into unconcealment is clear.

The second Herstellen is motivated by production as such: that is, it produces, only to do so more efficiently. This kind of production has the characteristic of challenging. The challenging is an expediting,

Yet that expediting is always itself directed from the beginning toward furthering something else, i.e., toward driving on to the maximum yield at the minimum expense.

★ (QT 15) The Question Concerning Technology

What is said above seems to conflict with what follows. It can be shown to be in conformity to it.

The word stellen (to set upon) in the name Ge-stell (Enframing) not only means challenging. At the same time it should preserve the suggestion of another stellen... namely, that producing and presenting (Her- und Dar-stellen) which, in the sense of poiesis, lets what presences come into unconcealment. (QT 21) The Question Concerning Technology

Herstellen as Herausfordern, is termed something like poiesis. What has been said up to now has gone to support the position that what these phenomena have in common is that they are modes of revealing and that Herausfordern originates in the productive comportment (Herausbringen). The main difference between the two is that poiesis lets a thing appear in the fashion appropriate to it while Herstellen in the second sense (Herausfordern) does not. The above citation points to another similarity. Heidegger holds the opinion that metaphysics is the history of



Being. Being destines (Geschick) itself in the various ways which metaphysics just reflects. Being is the truth of what is, and Ge-stell is a legitimate destining<sup>11</sup> of Being. Herstellen in the modern sense is then like poiesis, for it does indeed bring to unconcealment what presences. But what presences is, in this case, the technological object. As a destining of Being it is what really is and is grasped as such as Herstellen in what we distinguish as its more modern sense (Herausfordern). Nevertheless the difference between Herstellen and poiesis described above remains. They are similar in that both are epochs (Epoche) of Being. There is potential for a more profound similarity when one takes into account the fact that metaphysics always only responds to and chronicles what is present of Being and never what remains behind the presence: what is not revealed is presumably the same in all epochs.<sup>12</sup>

Herstellen understood as Herausfordern is without many of the qualities belonging to Herstellen in the first sense. For instance, the qualities of producing with an image in mind, taking into account specific human needs, basing itself on a physis understood as self-subsistent. These qualities fall away in part because man behaves in terms of the productive comportment towards the totality of beings instead of towards just one realm, thereby drastically altering the original situation in which the productive comportment was one way of behaving among others. But it is not simply a matter of behaving in terms of the productive comportment towards beings as a whole. The productive comportment has itself undergone a transformation in becoming Herausfordern. As a consequence of this change it no longer permits what is present to come forth: it makes the demand that something else come forth; and it no longer understands itself as over against a self-subsistent physis.

One aspect of producing is sufficient to distinguish the two types of Herstellen. Under Heidegger's term Hervorbringen, something is brought forth in the way appropriate to it namely, from physis by means of techne. The second sense of Herstellen is Herausfordern or challenging-forth (QT 14) wherein a demand is made beforehand, disregarding physis, that a specific something come forth. It is this meaning which enables Heidegger to interpret the modern age as a kind of metaphysics, i.e. a way of revealing an aspect of Being while at the same time concealing the rest of it. To this limitation in the revealing of Being corresponds a limitation of man's own existential sphere in its Heideggerian sense as projection (Entwurf). In technology man no longer projects his life ahead of himself; rather he submits to the demands inherent in production for production's sake. This is what constitutes the greatest danger of the modern age.

#### ARGUMENTS FOR ATTRIBUTING TO HERSTELLEN

##### - A WIDER MEANING

It has been established that Herstellen has at least two distinguishable senses: Hervorbringen, bringing-forth in the sense of poiesis, and Herausfordern, challenging-forth. We may now concentrate on the second sense. Thus far it has only been distinguished from the first as a challenging-forth in contrast to bringing-forth. Part of what Heidegger does is to claim that production as a consequence of the way men have taken Being applies not just to those entities we understand as having been produced but to the sum of entities including those we would not normally term 'produced'. In what follows two aspects of

Heidegger's philosophy are employed to show that he applied Herstellen in a broader sense than is traditional.

He says, Herstellen, to place here, to produce,

...means(also)...to bring into the narrower or wider circuit of the accessible, here, to this place, to the Da, so that the produced being stands for itself on its own account and remains able to be found there and to lie-before as something stably for itself. (BP 108)

What is brought to this place, to the area of the accessible is anything man has any dealings with at all. Everything man has dealings with, that he grasps in some way or other, that he takes account of is, if we follow this statement, to be included under the rubric of Herstellen.

The things we use every day in work, travel, in our doings of whatever sort, are brought to the 'Da' merely in virtue of our using them or being involved with them. And the ways of dealing with them must be termed ways of producing. Clearly this points to a broader use than is traditional.

Here, then, is the first indication that Heidegger's use of the term Herstellen differs from the standard use where it means to manufacture, build, fabricate, place here, or place near. Commenting on technology, Heidegger terms it production. (PLT 116) (What are Poets For?) In doing so he seems to remain within the compass of the traditional sense of the term 'production'. Normally technology is understood as making things for use based on the findings of modern science. But Heidegger extends this sense as in the following example,

The parting self-assertion of objectification wills everywhere the constancy of produced objects, and recognizes it alone as being and as positive. (PLT 125)  
What are Poets For?

Objectification is here equated with production. Any realm capable of being objectified then, and this includes any realm to which concepts can be applied, is part of the realm of production.<sup>13</sup> Included are the

sciences, arts, and all the ways of doing and dealing with that which we are involved in. All, then, are modes of production to which correspond realms of the produced. Heidegger enlarges on the above,

Man places before himself the world as the whole of everything objective, and he places himself before the world. Man sets the world towards himself, and delivers nature over to himself. We must think of this placing-here, this producing, in its broad and multifarious nature. Where Nature is not satisfactory to man's representation, he reframes or redispenses it. Man produces new things when they are lacking to him. Man transposes things where they are in his way. Man interposes something between himself and things that distract him from his purpose. Man exposes things when he boosts them for sale and use. Man exposes when he sets forth his own achievement and plays up his own profession. By multifarious producing, the world is brought to stand and into position. The Open becomes an object, and is thus twisted around toward the human being. Over against the world as the object, man stations himself and sets himself up as the one who deliberately pushes through all this producing. (PLT 110) What are Poets For?

Herstellen is the placing-here. What is placed here, in the realm of human doing is the world as the sum of what is. The 'placing-here' is accomplished in objectification. All forms of objectification, then, are modes of production.<sup>14</sup>

To put something before ourselves, propose it, in such a way that what has been proposed, having first been represented, determines all the modes of production in every respect, it is a basic characteristic of the attitude which we know as willing. The willing of which we are speaking here is production, placing-here, and this in the sense of objectification purposely putting itself through, asserting itself. (PLT 110) What are Poets For?

The representation accomplishes objectification: it is via representation that something becomes an object for us. Representation is what places something before us (placing-here). It does so by bringing the geometrical object mathematically before us, the object of physics before us in the formulae of that science, the object of sociology as worked out

in concepts and statistics, the object of history via interpretation and causal relations. Representation, and with this Heidegger does not confine himself to talk of sensory events but rather to all forms of manipulation and using and theory, is what delivers the object in all its variety as first what is grasped, and then what can be placed, used, arranged, combined etc, in sometimes, an infinity of ways specifiable in disciplines from mathematics to theology, to information processing to human resources management. The act of representing is, according to what Heidegger has said, an act of producing. If in metaphysics what is is only what can be represented in some fashion and if representing is producing then everything in the modern age which is, is produced, is the result of production. The ultimate meaning of Herstellen, that is, in its sense of production as such (Herausfordern), is to be found in the congeries of phenomena which make up technology.

<sup>1</sup>"...according to Heidegger, man's behavior or stance, that of disclosing which we may call his basic activity, as different from his specific modes of behavior- is always based on and determined by the kind of unconcealedness prevailing at any time. And this unconcealedness becomes accessible to us by way of man's mode of acting, of relating himself, at that time." Walter Biemel, Martin Heidegger an Illustrated Study, trans. J.L. Mehta (New York: Harcourt Brace Jovanovich, 1976), p. 140.

<sup>2</sup>"Phuein means to let grow, procreate, engender, produce, primarily to produce its own self." Martin Heidegger, The Basic Problems of Phenomenology, trans. A. Hofstadter (Bloomington: Indiana University Press, 1982), p. 107.

<sup>3</sup>Compare Heidegger's definition of Phenomenon in Being and Time pp. 51-55. Introduction pt. 11.

<sup>4</sup>"Thus techne in launching out beyond what is given and creating the work that gathers and lets appear, frees Being to happen decisively as unconcealment. It does so through attending upon and safeguarding Being by letting it endure powerfully in the work that has been brought forth." William Lovitt, "Techne and Technology," Philosophy Today vo. xxiv #4 (Spring 1980): 65.

<sup>5</sup>"Through techne man brings forth into manifestness and into presencing a particular work. The end in relation to which that work is prepared determines what it shall be. It dictates what material shall be chosen for it, determines the aspect it shall have, and governs the actual working that completes it." *ibid.*, p. 65.

<sup>6</sup>The causality involved in techne clarifies it further. Heidegger gives the following analysis of Aristotle's fourfold causality. The Greek term aition means "...that to which something else is indebted." Martin Heidegger The Question Concerning Technology and Other Essays, trans. W. Lovitt (New York: Harper and Row, 1977), p. 7. The four causes are all ways of being responsible for something else. "A silver chalice is indebted to silver as its matter and to the eidos of chaliceness, and to the telos confining it to the realm of consecration. The smith gathers together these ways of being responsible and carries them out. The four causes only secondarily 'cause' the thing, what they really do is enable it to be what it really is." They describe the event of bringing into unconcealment something that was concealed.

<sup>7</sup>An instance of showing the thing as it is can be found in Martin Heidegger, Poetry Language and Thought, trans. A. Hofstadter (New York: Harper and Row, 1971), p. 163 ff.

<sup>8</sup>(in techne, man) "...creates something new out beyond what is already given. In so doing he allows the Being of whatever is to become genuine appearing, not obscuring confusing semblance." Lovitt, "Techne and Technology," p. 64.

<sup>9</sup>See Heidegger, The Basic Problems of Phenomenology, p. 108.

<sup>10</sup>See Heidegger, "The Thing" in Poetry Language and Thought, pp. 165-182.

<sup>11</sup>For an account of destining see Heidegger, The Question Concerning Technology, pp. 37-38 and Martin Heidegger On Time and Being, trans. Joan Stambaugh (New York: Harper and Row, 1972), pp. 8-9.

<sup>12</sup>See Heidegger, "The Way Back into the Ground of Metaphysics" trans. W. Kaufmann Philosophy in the Twentieth Century, ed. W. Barrett and H. D. Aiken (New York: Random House, 1962), p. 221 and Heidegger, "The Postscript to What is Metaphysics" trans. W. Brock Existence and Being, W. Brock (Chicago: Henry Regnery Company, 1949), p. 353; and Heidegger On Time and Being, pp. 19-24. It is at least to some degree the same: e.g. as the Nothing or as not-presencing.

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13" ...Nature is summoned before man by man, that is, man objectifies the world- which is to say that the 'world' or 'Nature' is brought back to man. Hence the term Her-stellen, whose prefix denotes directionality back to the subject,...and which suggests that 'representing' (Vorstellen) is always already a 'Her-stellen' or 'Zu-stellen'." John Loscerbo, Being and Technology A Study in the Philosophy of Martin Heidegger (The Hague: Martinus Nijhoff Publishers, 1981) p. 118.

14 Commenting on the above passage, Loscerbo agrees. "By means of these varied modes of Her-stellen, which we translate with modern producing, the world is objectified, brought to its stand by and for man." *ibid.*, p. 118.

## CHAPTER THREE

### THE INTERPRETATION OF TECHNOLOGY AS PRODUCTION

#### INTRODUCTION

The subject of this chapter is production in the sense of Herausfordern and how it applies to technology (Technik), the metaphysics of the modern age. It will be shown why we maintain that Herausfordern provides the best medium through which to grasp Heidegger's conception of the modern age. There are two reasons. In the first place that is how Heidegger understood it. The interpretation of the phenomena comprising technology via Herausfordern, which occupies almost all of chapter three is intended, through the light it sheds on each phenomenon, to provide the second reason.

There is no question about whether Heidegger took Technik to be the metaphysics of modern times.

Machine technology remains up to now the most visible out-growth of the essence of modern technology, which is identical with the essence of modern metaphysics.  
(QT 116) The Age of the World Picture

We may now ask what Heidegger took as essential in modern metaphysics and consequently in Technik. This comes out in a comment of his on marxism.

Le marxisme pense en effet à partir de la production: production sociale de la société (la société se produit elle-même), et autoproduction de l'homme comme être social. Pensant ainsi, le marxisme est bien la pensée d'aujourd'hui, la pensée qui correspond à la situation



d'aujourd'hui, où effectivement règne l'autoproduction de l'homme et de la société. (Q 325) Séminaire de Zähringen

Later in the same seminar Heidegger refers to contemporary man as the one who understands himself as producer of all reality. (Q 327) (Séminaire de Zähringen) He goes on to say, Zähringen (Q 332), that with Marx is attained the most extreme position of Nihilism.<sup>1</sup>

The third chapter also attempts to show how the phenomena described by Heidegger which I take to comprise the metaphysics of the modern age are most aptly interpreted via Herausfordern or production as such. This is best accomplished if one bears in mind the key features of Herstellen/Herausfordern when covering each element of what Heidegger takes to be our fundamental behavior towards beings in the modern age. What follows will show in what respects the elements of the metaphysics of the modern age, technology, are either species of production in the sense of Herausfordern or have as their end the accomplishment of production. In short, it will show what Heidegger means when he calls technology production. (PLT 116) (What are Poets for?)

#### TECHNOLOGY AS PRODUCTION

Heidegger calls a given period of history an epoch (Epoche) of Being. An epoch is how Being shows itself at a given time. It is this which is grasped as Being in the metaphysics of that time, so that each epoch of Being is set out in a metaphysics. The present epoch finds expression, Heidegger claims, in the congeries of phenomena to which he gives the overall title 'technology' (Technik). Technology is not a doctrine but an attitude toward Being: an understanding of Being in the

sense of a way of behaving toward Being.

- Gestell is a destiny (Geschick) of Being.

Enframing is an ordaining of destiny, as is every-way of revealing. (QT 24-25) The Question Concerning Technology

Enframing (Gestell) is the essence of technology, that is, it is how technology comes to presence.<sup>2</sup> The other components of technology are best seen beginning from enframing. Enframing is a destiny that starts man upon a way of revealing.<sup>3</sup>

As this destiny, the coming into presence of technology gives man entry into That which, of himself, he can never invent nor in any way make. (QT 31) The Question Concerning Technology

As a destiny of Being enframing is not something man-made, rather it is something that reveals itself to man.

It (enframing) is the way in which the real reveals itself as standing reserve. (QT 23) The Question Concerning Technology

Man is, in a way, forced to grasp things in the fashion of enframing,

Enframing means the gathering together of that setting-upon which sets upon man, i.e., challenges him forth, to reveal the real, in the mode of ordering, as standing reserve. (Bestand) (QT 20) The Question Concerning Technology

As challenged man stands within enframing (QT 28) ibid.: it is not something he may or may not do. Enframing is Being itself, and thus it can never be mastered by a human doing founded "...merely on itself." (QT 38)

(The Turning) In spite of this man as the one who carries out enframing inevitably sees it as his own work as i.e. what will grant him mastery over nature.

- The essence of technology is 'Ge-stell' translated as enframing or the frame: as, from one viewpoint, the way we understand Being it is Gestell that obliges man to approach nature in the way he does.<sup>4</sup> In enframing science is put to use in ordering, to reveal nature as energy

that can be "...extracted and stored as such." (QT 14) (The-Question Concerning Technology) This challenging (for enframing makes a demand on nature and on man) is always an expediting,

...this expediting (Fördern) is always itself directed toward furthering something else, i.e. toward driving on to the maximum yield at the minimum expense. (QT 15)  
The Question Concerning Technology

It orders so that it can accomplish this. Not even philosophy is unaffected, it becomes the empirical science of man,

...of all the ways of what can become the experiential object of his technology for man, the technology by which he establishes himself in the world by working on it in the manifold ways of making and shaping. (TB 57)

Psychology, sociology, anthropology, logic as logistics and semantics, once philosophical matters, now serve the technological process. Further, Heidegger characterizes it as "an act without an image," which, "interposes before the intuitive image the project of the merely calculated product." (PLT 127) (What are Poets For?) This may be because ultimately all things are dissolved into numerical configurations ready for use, and numbers require no images; perhaps also because once people had in mind what they intended to make before they embarked on making it and adapted the making to the thing to be made instead of vice versa. Calculative making does not see its object in that way; it is not a making in terms of purposes, human context, appropriateness; rather, it makes only in order to make more efficiently and in order to prepare the ground for further manufacture. That is why the hydroelectric plant is not built into the river, but rather the river is as it were built into the plant, whatever 'the river' was or could be, as something 'showing itself in itself,' as phenomenon, is obliterated by viewing the river in terms of the possibilities inherent in the powerplant and the exigencies

determining it. Ultimately nothing is seen from out of itself and all things will be seen from the standpoint of the perfected calculus that calculates only power in general.<sup>5</sup> Here are two further instances of this organizing. The first concerns speech.

Within framing, speaking turns into information. It informs itself about itself in order to safeguard its own procedures by information theories. Framing ... commandeers for its purposes a formalized language, the kind of communication which 'informs' man uniformly, that is, gives him the form in which he is fitted into the technological calculative universe,... (WL 132)  
The Way to Language

Speech, then, is interpreted and subsequently refashioned as efficient information carrier; it is not merely so ~~used~~ but defined as such. Furthermore, with regard to what-is,

The ordering belonging to Enframing sets itself above the thing, leaves it, as thing, unsafeguarded, truthless. In this way Enframing disguises the nearness of world that nears in the thing. (QT 46) The Turning

The technological object is in terms of calculation: that is, it is rendered in terms of figures which themselves are the most efficient form of plotting pure effecting.<sup>6</sup> One might say that the object is interpreted mathematically, if one were to bear in mind that there were within the frame no other legitimate interpretations possible. One might object that the object is also valued because, for instance, it exemplifies man's highest aspirations. Such an argument is ineffective bearing in mind the analysis of value given by Heidegger (see below p.46 ff.). The nearness that can near in the thing is described in an essay in Poetry Language and Thought PP165-182 (The Thing). It suffices to say here that in Heidegger the thing has an inherent value, while technology assesses it in terms of what ends it serves or what values it exemplifies but is blind to its inherent significance. Technology must locate a

thing's meaning outside the thing.

As a destining or epoch of Being, enframing is a way of revealing. Like poiesis it is a bringing forth but as a 'challenging' it does not permit the thing to come forth in its own terms. (QT 30) (The Question Concerning Technology) It requires calculability to come forth.

Enframing, as a way in which Being is understood, is the drive to discover things as producible. As the way things are grasped in the modern age it makes technology and thus production (Herausfordern) possible.

In enframing the essent is revealed as standing-reserve (Bestand), wherein,

Everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering. (QT 17)  
Question Concerning Technology

The thing is then available in easily manipulable forms and continues to change shape, as it were, insofar as such change facilitates usability.<sup>7</sup>

What is as standing-reserve no longer stands over against, as something having its own significance, as does the object (Gegenstand).

An airplane stands on the runway, and is, as are all its parts, available for transportation. (QT 17) (The Question Concerning Technology) It is no longer an object because it does not stand on its own against man: it is entirely in terms of the uses to which it will be put. The standing reserve stands at the will's disposal because it has already been set in place and produced. (QT 84) (The Word of Nietzsche) This is a reference to representational thinking as what initially brings the thing before man in such a way that it can be further produced.

When man grasps things as standing-reserve he also grasps him-

self as such.' (QT 27) (The Question Concerning Technology) Hence talk of human resources and development.<sup>8</sup> The standing-reserve characterizes the thing as something available for further manipulations and production.

Enframing is the center around which revolve many contributory phenomena. These can be conveniently divided into those having to do with the subject side of things and those having to do with the object side. On the subject side the activity of technology- the way it grasps and interrogates things- is carried out by the subject as will to will guided by value.

'Subjectum', originally the name for substance or that which pre-eminently is, is, in the modern age, man. Subjectivity needs to be understood in association with the will to will, an account of which follows; meanwhile we shall indicate what, according to Heidegger, the highest development of subjectivity involves.

Désormais la subjectivité en tant que Volonté de puissance dans l'autorisation pure et simple de la puissance à se dépasser ne se veut elle-même qu'en tant que puissance. Se vouloir soi-même signifie ici: se porter devant soi dans le suprême achèvement de l'essence même. Il faut de ce fait que la subjectivité achevée porte, à partir de ce qu'elle a de plus intérieure, au-déla et hors d'elle-même sa propre essence. (N 11 243)

'Subjectum' is the latin term for hypokeimenon which Heidegger says the Greeks used to name,

...that-which-lies-before, which, as ground, gathers everything into itself. This metaphysical meaning of the concept has first of all no special relationship to man... (QT 128) The Age of The World Picture

The subjectum has the traditional features of substance: it stands independently, is a bearer of properties, and lies at the basis of its changing states. (QT 148) Similar qualities were attributed by Descartes to the ego cogito: permanent presence, certainty, firmness in

in advance of everything. Hence it is also,

...that which places everything in relation to itself  
and thus (is) "over against" others. (EP 87) Overcoming  
Metaphysics

Descartes envisioned the certainty inherent in the ego cogito as a  
matter of bringing to a stand something that is firmly fixed and remains.

This standing established as object is adequate to the  
essence, ...of what is as the constantly presencing,  
which everywhere lies before (hypokeimenon, subiectum).  
...Inasmuch as Descartes seeks his subiectum along the  
paths previously marked out by metaphysics, he, thinking  
truth as certainty, finds the ego cogito to be that which  
presences as fixed and constant. In this way, the ego  
sum is transformed into subiectum, i.e., the subject  
becomes self-conscious. The subjectness of the subject  
is determined out of the sureness, the certainty of that  
consciousness. (QT 82-83) The Word of Nietzsche

The claim is that the Cartesian ego acquired the qualities of what pre-  
eminently is and thus merits the designation 'subject'. The ego became  
subject as a result of man's freeing himself from obligation to Christian  
revelational truth. (WT 96) Having done this he was in a position to  
posit the 'obligatory' as the known of his own knowing.<sup>9</sup> This was  
possible only when man decided "...what... should be 'knowable' and what  
knowing and the making secure of the known, i.e. certainty, should mean."  
(QT 148) (The Age of the World Picture) According to Heidegger,

Descartes' metaphysical task...became...to create the  
metaphysical foundation for the freeing of man to freedom  
as the self-determination that is certain of itself.  
That foundation,... had not only to be itself one that was  
certain, but since every standard from any other sphere  
was forbidden... (QT 148-9) The Age of the World Picture

It had to posit the essence of freedom as self-certainty. (QT 149) Ibid.

What is certain is that with his thinking man is indubitably co-present.

(QT 149) Ibid. And it is the mathematical that guarantees the certainty  
now required by the subject as its own basis.

He who dared to project the mathematical project put himself as ~~the~~ projector... upon a base which is first projected only in the project. This is not only a liberation in the mathematical project, but also a new experience and formation of freedom itself, i.e., a binding with obligations which are self-imposed. In the mathematical project develops an obligation to principles demanded by the mathematical itself. According to this inner drive, a liberation to a new freedom, the mathematical strives out of itself to establish its own essence as the ground of itself and thus of all knowledge. (WT 97)

The highest axioms after Descartes are the mathematical, they decide in advance what is in being, what being means and how the thingness of things is determined. (WT 103). When Being as hypokeimenon becomes the subject as it does in response to Descartes' redefinition of truth as certainty, "Man becomes the being upon which all that is, is grounded as regards the manner of its Being and its truth." (QT 128) (The Age of the World Picture) Thus Heidegger can say that the more objective the object appears the more the account of the world changes into the doctrine of man,<sup>10</sup> anthropology. (QT 133) (The Age of the World Picture) The objectivity of the object is determined by mathesis which is what comes before, what is, in fine, only thought working itself out or thinking itself.

Being is now subject as a consequence of the fact that,

The ousia (beingness) of the subjectum changes into the subjectness of self-assertive self-consciousness, which now manifests its essence as the will-to-will. (QT 79-80)  
The Word of Nietzsche

How is the subjectum related to production? It is not a species of production as is representational thinking, rather, it subserves production. Doing so first by providing that against which all production takes place. It, as subject, has the objective sphere as its correlate. As what really is, substance, it provides the standards in terms of which production takes place. These standards derive from mathesis,



what the subject already knows and what it can be certain of. (see below pp. 60-62; also notes 11 and 12). The mathematization of knowledge takes place at the behest of the subject so that it can render itself secure. This mathematization is what makes the object something producible and is in fact part of the process of production. The subject delivers up the produced object and does so in terms of itself. Mathesis, the way in which the essent is objectified, is what belongs peculiarly to the sphere of the subject:<sup>11</sup> thus the subject renders up the object in terms of itself. The particular direction taken by mathesis is dictated by the will, which requires an object which is graspable at any time, which endures, and whose relations with as many other objects as possible are explicit. In short, it demands that object realms be secured. It then, through refinement of method with the goal of gaining a more all-encompassing control over the object realm, enlarges its grasp. All this, carried out by the subject as 'volunteer' of the will, is the production and rendering producible in the many senses indicated earlier.

A more profound analysis of the subjectum reveals that in terms of its way of acting it is the will to will (Wille zum Willen). In Heidegger's view the will to power is Being in the modern age: it is what is. (QT 81) (The Word of Nietzsche) The will is characterized as the will to mastery because it seeks to command and requires something to command. (QT 77) (The Word of Nietzsche)

In the command, the one who commands (not only the one who executes) is obedient to that disposing and to that being able to dispose, and in that way obeys himself- (QT 77)  
The Word of Nietzsche

The will is termed will to will because in willing it does not will something else, like knowledge, but wills only itself. If it wills knowledge

it does so because knowledge is a means to more effective willing. In willing itself the will wills power. (QT 77-8) Ibid. The essence of power, in Heidegger's view, lies in being master over the power acquired at any given time and in striving to acquire more power. (QT 78) Ibid. Power, or the will, since they are the same, is thus engaged, as willing enhancement, in overcoming itself, that is, in overcoming what of it there is at a given time in order to make more. Power must be made secure so that the will can have a base from which to accumulate more power. It is a necessary condition of it. (QT 80) (The Word of Nietzsche)

The presentation of the level of power belonging to the will reached at any given time consists in the will's surrounding itself with an encircling sphere of that which it can reliably grasp at, each time, as something behind itself, in order on the basis of it to contend for its own security. (QT 83-84) The Word of Nietzsche

This rendering secure is a value, something, that is, which permits the will to preserve and enhance. Securing is a foundation of knowledge, that is, of objectification carried out by the subject: objectification through the agency of mathesis, stabilizes, makes available and renders things calculable, so that they can be put to use as required by the will in projects designed to further enhance power.

The will must cast its gaze into a field of vision and first open it up so that, from out of this, possibilities may first of all become apparent that will point the way to an enhancement of power. The will must in this way posit a condition for a willing-out-beyond-itself. (QT 80) The Word of Nietzsche

These conditions are values, they are what the will pursues and abides by in order to permit preservation and securing. They determine the method chosen by the will in further establishing itself. Since the will by nature overcomes and wills out beyond itself it is seizure "pure and simple." (N I Krell 46) And this in the sense that it is a requirement

of the will that everything that is be drawn into it and exist in terms of it: in terms of whether a given thing preserves and enhances or not for instance. The will seizes in that it takes things out of themselves and makes them be in terms of it: as will to power. Thus the will values.

To value is to constitute and establish worth. The will to power values inasmuch as it constitutes the conditions of enhancement and fixes the conditions of preservation.  
(QT 80), The Word of Nietzsche

The will strives towards its own unity: it creates its unity by bringing itself before itself.

"Will as self-effectuation striving toward itself in accordance with a re-presentation of itself (the will to will)" (EP 63) Sketches for a History of Being as Metaphysics

The will seeks itself, and posits everything in terms of itself. In view of this representation is calculative thought designed to order beings and to put them, to the greatest extent possible, at the disposal of the will. Thus representation stabilizes and organizes them: they endure as object, already there, at the disposal of the will. In all this the will seeks knowledge, truth, art, etc. but these, as values, are only what has proved conducive to the will. The will wills beyond itself only to better seek itself; it wills ends and means only as they more effectively empower it. It seeks to work out a kind of abstract effectiveness: for what can be controlled is only what occurs, what influences, what changes over time, what can be made: in all this the thing is understood from the standpoint of effecting, doing, making.<sup>12</sup> The will, which stands at the other pole to things, as that which carries out all effecting, determines how it will be carried out, and modifies its methods so that they will be more effective. It strives towards effecting in general

in order that more effecting can be carried out and for no other reason. Even values, which are supposed to be reasons for carrying out one thing rather than another are, according to Heidegger only what subserve effecting. They are not, then, something other than the will to power, but only the interest of the will.

The correctness of the will to will is the unconditional and complete guaranteeing of itself. What is in accordance with its will is correct and in order, because the will to will itself is the only order. (EP 100) Overcoming Metaphysics

Truth, then, is for obvious reasons certainty (Gewissheit). It is closely associated with efficacy as the latter is the 'how' of the will. Truth, as understood by the will, must be concerned mainly with making possible the prediction of states of things, analyzing their conditions, and assessing the results of the application of force to things. For the will,

...all truth becomes that error which it needs in order to be able to guarantee for itself the illusion that the will to will can will nothing other than empty nothingness, in the face of which it asserts itself without being able to know its own completed nullity. (EP 86) Overcoming Metaphysics

Man wills himself as the volunteer of the will to will. (EP 86) Ibid.  
He carries out the program. And since the will is efficacy,

By such willing, modern man turns out to be the being who, in all relations to all that is, and thus in his relation to himself as well, rises up as the producer who pushes through, carries out, his own self and establishes this uprising as the absolute rule. (PLT 111) What Are Poets For?

Man as willing the will takes his own being from it. He then proceeds, as willing, to determine all realms of Being in terms of the will's exigencies. As subjectum, and as willing, man insurrects and rules, that is, determines the place and measure of all other beings by assigning

their Being to them as will in terms of will.

Willing, or the will to will is the motive and goal of all producing. It is producing. The term 'will' fits all doing, organizing, transposing, arranging. All these are ways of producing. All the various ways in which the will acts are ways of producing, when the will wills, it produces. It also provides the motivation and goal for all producing: itself. The reason for the manifold ways of producing can be named with one word, the goal of all the manifold ways can be named with the same word: will. Modes of production are altered in line with one ultimate end: a more efficacious willing. Values are related to complex formations of the will to will, e.g., science, politics, religion.<sup>13</sup> The seeing which aims always at the preservation and enhancement of the will employs such means as it considers best able to encompass the end. It always sees only what has been brought before itself in representation. (QT 71-72) (The Word of Nietzsche) This positing representation (it posits the thing in terms of its calculability) directs the gaze toward something and thus guides the path of sight: this point becomes what matters in all seeing. (QT 72) (The Word of Nietzsche) Value is counting.

It counts in as much as it is posited as that which matters. It is so posited through an aiming at and a looking toward that which has to be reckoned upon. (QT 72)

Value for Nietzsche is a point of view, something upon which the eye is fixed. It means "...that which is in view for a seeing that aims at something or that, as we say, reckons upon something and therewith must reckon on something else." (QT 71) Ibid. One reckons upon guaranteeing the quantum of power at a given time and increasing it, to do so one reckons with values. Value is associated with quantity and number.

(QT 71) (The Word of Nietzsche)

Les «points de vue» posé dans semblable «vision» sont en tant que conditions de telle sorte qu'il est nécessaire de compter sur elles et avec elles. Ces conditions ont la forme de «nombres» et de «mesures», c'est à dire de valeurs. (N II Klossso 216)

In the Nietzschean philosophy, says Heidegger, truth becomes a value: truth as what is stable and solid.

L'essence du vrai réside originellement dans cette sorte de prendre-pour-solide-et-sûr; cette manière de prendre pour, cependant, n'est pas un agir arbitraire, fortuit, mais le comportement nécessaire à la mise en sécurité de la stabilité de la vie même. Ce comportement, en tant que tenir pour et poser une condition de vie a la caractère d'une institution de valeurs et d'une évaluation. La vérité est par essence évaluation. (N I Klossso 425)

It is decisive to the West since Plato, Heidegger says, that man thinks truth as correctness of representing according to ideas and esteems the real in terms of value. What is determining is that the real is weighted according to value. (PD 269-270) When a thing is regarded as a value or is assessed from that standpoint it has lost any meaning that was ever its own:

This is to say that through the estimation of something as a value, one accepts what is evaluated only as a mere object for the appreciation of man. But what a thing is in its Being is not exhausted by its being an object... (LH 292)

Value is a consequence of the reign of Being as will to will. Outside the will a thing is without meaning; considered by the will it has value or it does not: value is the measure of whatever is. Such, for Heidegger is nihilism.

...le nihilism comprend l'act de penser (l'entendement) en tant que le calcul, propre à la Volonté de puissance, qui compte sur une mise en sécurité de la consistance et celle-là, en tant qu'institution de valeurs. (N II 235)

Values are standards of production in that they give the specifi-

cations, e.g. of the man, or of the thing. Knowing values one knows in advance what to make or to aspire to become. Values are standards of consumption because they tell us what to choose and what to avoid and guide us in fashioning the thing or ourselves in the way such that they can best be consumed in further production.

Truth too, as what makes constant and secure, belongs to the realm of the will: it is a value.

Value is the objectification of needs as goals, wrought by a representing self-establishing within the world as picture. (QT 142) The Age of The World Picture

Standing opposite the subject and determined by it is the object. The subject delivers the object to itself through representational thinking, a way of thinking which determines what is through certainty. Certainty is accomplished by mathesis and calculation.

Etymologically, says Heidegger, objectum means something thrown against. (WT 26) Prior to Descartes it meant the correlate of imagination, (WT 105) now it designates the real thrown up against its correlate, consciousness. Beginning with Descartes,

To the object there belongs the what-constituent of that which stands over against (essentia-possibilitas) and the actual standing of that which stands opposite (existentia). The object is the unity of the constancy of what persists. In its standing, persistence is essentially related to the presentation of representation as the guarantee of having-something-in-front-of-oneself. (EP 87) Overcoming Metaphysics

The trend to objectification in metaphysics, Heidegger claims, nears its culmination in Nietzsche; with the advent of the overman, Heidegger says,

All that is, is now what is real as the object or what works the real, as the objectifying within which the objectivity of the object takes place. (QT 100) The Word of Nietzsche

What is in the world becomes either subject or object for a subject.

Where the trend culminates, objectifying is accomplished as a representing, the proximate motive of which is certainty of calculation. What is representable is what can be rendered certain; what is represented is what is.

In the revolutionary objectifying of everything that is, the earth, that which first of all must be put at the disposal of representing and setting forth, moves into the midst of human positing and analyzing. (QT 100)  
The Word of Nietzsche

Since the specific qualities of representation are determined by subject's requirement for certainty, and since what is representable is only what can be represented in terms which are certain e.g. in mathematical terms Heidegger concludes that:

...for the ego all that is is object- and objectivity is swallowed up by the immanence of subjectivity.  
(QT 107) The Word of Nietzsche

An object, the last detail of which is determined from the standpoint of the requirements of subjectivity no longer exists as something standing over against a subject, as a real other.<sup>14</sup>

The term 'object' will be further clarified in the section on representational thinking, which is what determines any given thing as object, in terms of the demands of representability in general, which terms are themselves determined by the requirements of the will to will.

Interpreted from the standpoint of production the object is what is produced in the various ways of producing and is determined from out of the exigencies of more efficient production. It is mathematized where possible because this renders it more amenable to producing in the sense of representing and to manipulation in general. As manipulable in various ways it is 'ready' for whatever uses it is to be put to in.



the service of the will. The mathematization of the object and its rendering in terms of a cause-effect coherence is not motivated by specific ends which determine what is usable and what isn't, rather it is determined by usability itself. For instance, an experiment in biology, whose object is living organisms, seeks to discover the result of an action. More broadly what is sought is the consequences of all possible actions on organisms and a way of representing them which makes all those actions accessible. The goal is the production (building, altering, adding, subtracting, reconstructing) of organisms. What is sought in the object is to as great an extent as possible something that can be used- just so, that it can be used more conveniently- not so that it can be used for anything in particular. And using means producing, either in making something else, as part of something or some process, as a unit in a calculation, or as a step in a series of steps, which themselves have only the never-ending task of making more manipulable.<sup>15</sup>

Representational thinking (vorstellen, Vorstellung) shapes the object in accordance with the requirement of certainty, itself a requirement of the will. The question of certainty, Heidegger holds, arises with Descartes who, he claims, altered the fundamental question of philosophy as it had been asked since Aristotle (what is being in so far as it is) by asking "...what that being is that is true being in the sense of the ens certum." (WP 85-86) This question is motivated by doubt. After Descartes Being is rendered in terms of a certainty determined from the cogito ergo sum. (WP 86) Perception, once a passive acceptance of what was there,

... devient désormais une instruction (un interrogatoire)

Vernehmen) au sens judiciaire. Le representant interroge (instruit) à partir de soi et devers soi tout ce qui s'offre à lui, à seule fin de savoir si et comment ceci résiste à ce que le produire-devant-soi exige en fait de mise en sûreté pour sa sécurité (certitude) propre.  
 (II 237)

As certainty, truth functions to reaffirm the subject, to secure him.

What is certain is the knowable which could only be guaranteed,

... insofar as man decided, by himself and for himself,...  
 what, for him, should be 'knowable' and what knowing and the making secure of the known, i.e., certainty, should mean. (QT 148) The Age of the World Picture

The subject determines that the criterion of Being (not of knowledge) should be certainty because, according to Heidegger, from Descartes on it is the assurance of himself and of his effectiveness that determine the reality of man. (EP 21) (Metaphysics as History of Being) This assurance is understood as attempting to guarantee effectiveness and doing.<sup>16</sup> Calculative certainty is what best brings this about since it can deliver, in manageable form, the thing as part of a cause-effect nexus, as what can be altered or affected in various fashions, by plotting those changes, and as what can be planned. Certainty means that truth is no longer the simple requirement that the thing be properly represented, it adds the condition that the thing be represented in accordance with the standards of the thinking substance: that is, in a fixed and constant fashion. (QT 83) (The Word of Nietzsche) This requires,

...that everything to be represented and representing itself are driven together into the clarity and lucidity of the mathematical idea and there assembled. (QT 89)  
 The Word of Nietzsche

In short, what is is only what can be interpreted in mathematical terms or only what of phenomena can be mathematically interpreted: that is, organized, grasped unambiguously by all and held unchanging or in such

a way that any change can be plotted.

Truth, once unconcealment, becomes understood as certainty accomplished by calculation which alone guarantees, "...being certain in advance, and firmly and constantly, of that which is to be represented." (QT 149) (The Age of the World Picture) The requirement of certainty means knowledge becomes,

...a representation which is grounded in consciousness in such a way that only that knowledge is valid as knowledge which at the same time knows itself and what it knows as such, and is certain of itself in this knowledge. (EP 20) Metaphysics as History of Being

And,

La consistance de la présence, c'est à dire la propriété d'être consist désormais dans la représent-ité par et pour cet acte de représenter, c'est à dire dans cet acte même. (N II 237)

Being is now what conforms to the demands of representation, what can be represented. And representation since Descartes has become self-representation,

But, being certainty, truth is intellectual representation itself, insofar as the intellect represents itself, and assures itself of itself as representation. (HCE 38)

The intellect represents itself as adhering to its own demands and as working out what is certain, what is known in advance (mathesis), and is, hence, a quality of itself as subject (which is in advance of anything else), as the standard of a knowledge of things. Because its perceptions (objects) are, as representations, determinations of itself the subject's knowledge is self-knowledge.

Certainty facilitates production. As criterion of objectivity, it ensures that the phenomenon is grasped only insofar as it is mathematizable. Thereby it permits the articulation of phenomena in a way such that they are as amenable as possible to the manipulations of the

subject,<sup>17</sup> which manipulations are undertaken in terms of a knowledge entirely in possession of the subject: the mathematical.<sup>18</sup>

Representational thinking (Vorstellen) accomplishes the project of metaphysics, which is the understanding of Being from the standpoint of beings, and with it the subjectivization of Being. It is accomplished by or in the idea, concept, or content of consciousness. Through the idea, the locus of mathesis, representation gives us a view of the thing, of what is typical of a plant, stove or stone; and it is this view we look into when a thing confronts us as a tree or a stone. (DT 63) An idea is a view on things, it does not rule out other views.<sup>19</sup>

Re-present (Vor-stellen) means to put something before oneself and to have it before one, as the subject to have something present toward oneself and back into oneself. (WT 136)

In representing,

...man sets himself up as the setting in which whatever is must henceforth set itself forth, must present itself...  
(QT 132) The Age of the World Picture

The claim is that things have being or are understood only in man's terms, more specifically in terms of certainty which secures the will. (QT 127)

Ibid. Since things are present, that is, in being in terms of man, (that is, in terms of what he already knows about them from his basic comportment towards them) man is secured:

In this fundamental certainty man is sure that, as the representer of all representing, and therewith as the realm of all representedness, and hence of all certainty and truth, he is made safe and secure, i.e., is. (QT 150)  
The Age of the World Picture

He is secured because co-present with every representation, and is co-present because every representation is in terms of the subject.

Representation objectifies.

Objectifying, in representing, in setting before,

delivers up the object to the ego cogito. In that delivering up, the ego proves to be that which underlies its own activity (the delivering up which sets before), i.e., proves to be the subiectum. (QT 100)  
The Word of Nietzsche

Representing is an active, not a passive occurrence. The ego, as subjectum, brings the object before itself in terms of the dictates of certainty. The ego's representations are its predicates. Descartes' notion of res cogitans makes the ego a subject and makes representations assertions about the subject:

The ego is a res, whose realities are representations, cogitationes. As 'having' these determinations the ego is res cogitans. (BP 126)

Finally,

...to represent (vor-stellen) means to bring what is present at hand (das Vorhandene) before oneself as something standing over against, to relate it to oneself, to the one representing it, and to force it back into this relationship to oneself as the normative realm. (QT 131) The Age of the World Picture

Representation, as the imposition of calculability upon what is and as the securing of the subject puts the ego or subject in charge. Representational or calculative thinking ranges, it seems, from any thinking whose major purpose is grasping effects or results to the thinking embodied in mathematical formulae. This type of thinking has two essential features: 1) what is known is placed before man already completed; 2) it is there for use, for further plans and projects. (PD 251)

...whenever we plan, research and organize, we always reckon with conditions that are given. We take them into account with the calculated intention of their serving specific purposes. Thus we can count on definite results ... (DT 46)

Clearly the recurrent characteristic of representational thinking is fixity understood with emphasis on enduring over time and even

more importantly on completeness: the conditions we reckon with are given, the purposes we have in mind are specific, hence also completed, the mode of calculation and the methods to be applied are also already available. All this ensures that there will be results and that those results will be definite. Any changes are in the area of more precisely articulated results, better modes of calculation, more economical possibilities. (DT 50) The concept stands opposite the subject ready to be disposed of, e.g. the chemical formula, species name, the colour designation. With respect to Being representational thinking is less an awaiting and more an aggressive search. It serves the ego (subjectum) by securing its existence: this is accomplished partly because in each representation the ego is co-positd. And as having my predicates, I, the ego, know myself. (BP 126)

The thinker's being-thinking is co-thought in the thinking. The having of the determinations, the predicates, is a knowing of them. (BP 126)

More importantly, though, the ego is secured as being the same over time, as unchanging in its role of the correlate to the object, and as determining the qualities making up the reality of the object.

Representation articulates beings in terms of ego certainty designated by Heidegger in the formula me cogitare= me esse. (QT 150) (The Age of World Picture) The other elements of the certainty are the result of the subject's requiring what it can make present on demand, what is, hence, dependent solely on it. Because the pre-eminent qualities of representation are dictated by this need for control, representation moves as close as possible to mathematics as the most secure discipline: available at all times, precise, exhaustive (from a certain standpoint).

Heidegger holds that representation determines all presencing

and all Being, in the modern age. Thus Being, understood since the Greeks as presencing, must now be understood from the standpoint of a certain kind of thinking: that is, it is interpreted: Being as representation. Representational thinking, since it understands Being in terms of beings viz. in terms of beings as calculable, is metaphysical, and is limited to explicating the metaphysically constructed world. (EP 87) (Overcoming Metaphysics) And, in the modern age Being is what lies in.

...setting-itself-before itself and thus setting itself up. (QT 100) The Word of Nietzsche

The ego decides what of Being is capable of being represented<sup>20</sup> with certainty and takes that as (having) Being. In doing this it is motivated by the need to secure itself. It only accepts as having Being those qualities necessary to maintain itself and so it sets itself before itself (in the form of the object it determines) and thus sets itself up.<sup>21</sup>

How is representation either a mode of production, in the service of production, or a facilitator of production? As what accomplishes objectivization thus rendering up the object, representation provides that which is produced in the manifold ways of producing. The development of representation consists in its becoming ever more finely attuned to the requirements of the will to will: that is, it develops by acquiring improved means of delivering up the object. When the essent is brought before (Herstellen) the subjectum and represented it is 'produced' in being placed, in being mathematized, in being determined as part of a precisely worked out system of relations. Thus represented it is now perfectly disposed for further arrangements, placings, and calculations: further producing.

The will as act, as carrying through, can also be termed technology (Technik): the way in which Being is understood in the modern age in Heidegger's view. The modern age grasps technology as instrument in man's hands, as the servant of science or as applied science. Reversing the prevalent interpretation Heidegger interprets science in terms of technology: by which he means his account of technology. Science' is a way of comporting ourselves towards Being and is more appropriately termed technology. Science, he says, has a twofold source: 1) work-experiences, that is, mastering and using what is<sup>22</sup> 2) metaphysics, the projection of the fundamental knowledge of Being. (WT 66) Both are visible in physics, which,

...sets nature up to exhibit itself as a coherence of forces calculable in advance, it therefore orders its experiments precisely for the purpose of asking whether and how nature reports itself when set up in this way.

(QT 21) The Question Concerning Technology

What is projected is the coherence of forces and it is done so that things become more amenable to being produced. Later science posits Being from out of a previous understanding of it (the project). This understanding is characterized in mathesis. As a consequence of this Heidegger can say with truth that science can only encounter what it has admitted beforehand as a possible object. (PLT 170) (The Thing) He can also say that,

In the sciences, not only is the theme drafted, called up by the method it is also set up within the method and remains within the framework of the method, subordinated to it. (WL 74) The Nature of Language

This is so if the method is the placing-before of nature for systemization and calculation that is the doing of mathesis. The experiment which interrogates in the service of the theme of knowledge, always receives in response only some systematic coherence of forces or other:



the theme is in terms of the method.

The mathematical, which founds modern science, is itself a species of mathesis. For the Greeks, mathemata were things in so far as they were learned, more specifically, "...it is...a way of taking and appropriating in which the use is appropriated." (WL 71) Ibid. It can be taught and learned. In regard to producing anything the producer must be familiar with the usability of the product before he can make it. We, in order to be able to encounter something as what it is, e.g. a weapon, must have a prior knowledge of something 'being a weapon' otherwise we grasp it as an incomprehensible something or, at least, as something whose use is as yet undiscovered. But even to take a thing as a something requires a prior understanding of 'something' we can encounter,

The mathemata are the things insofar as we take cognizance of them as what we already know them to be in advance, the body as the bodily, the plantlike of the plant...(WT 73)

The mathematical is something we bring along with us that enables us to encounter things: we do not get it out of things e.g. number is mathematical:

We see three chairs and say that there are three.  
What 'three' is the three chairs do not tell us,...  
(WT 74)

The mathematical, Heidegger says, is what we already possess; in learning to count to three we only grasp what we already have: the mathematical can be both the learned, in this sense, and the learning. (WT 75) Thus when science, taking its lead from Descartes, mathematizes nature it is embarking on a particular project or understanding. It is positing that entities be uncovered or grasped in a specific fashion: a way we determine them beforehand.

In this projection is posited beforehand that which things are taken as, and how they are to be evaluated. (WT 92)

As axiomatic, the mathematical project is the anticipation of the essence of things, of bodies; thus the basic blueprint of the structure of everything and its relation to every other thing is sketched in advance. (WT 92)

This also means that conditions are posed in advance to which nature must answer in one way or another. (WT 93)

Calculation is the organization brought about by the mathematical project: it renders beings calculable or grasps them insofar as they are calculable. Mathematics, however, whatever else it is, is also only the working out of what we already have. On account of this we can say that the thing thus construed is construed in terms of the subject (as construed in terms of what the subject possesses). Mathematics takes place in reckoning, that is, reckoning is a kind of mathematics. Heidegger has Nietzsche claiming that calculation,

...assume la fixation de ce qui afflue et de ce qui change sous forme de chose sur lesquelles pouvoir compter, auxquelles l'homme peut toujours revenir comme aux mêmes choses dont il eût faire tel ou tel usage, en tant que ses mêmes choses, et s'en servir à telle ou telle fin. (NI 450)

Calculation, then, fixes and renders stable whatever is so that it can be put to some use or other: the precise requirements of the will to will.

When calculation is applied to what is, when the mathematical project is projected, what is as calculable 'comes out' in the sum: (EB 356) (The Postscript to What is Metaphysics) e.g. the equation, chemical or otherwise, or the decision taken on the basis of a cost-benefit analysis where variables are weighted in terms of importance.

In calculation one is assured an answer of some kind or other (for

nothing is included but what can be calculated). A thing is only what it 'adds up to'; a chemical is the possible chemical reactions it can be involved in, a part is the possible uses it can be put to. What a thing adds up to is itself in terms of its mathematical organizability. Calculation ultimately uses things only as units of computation: in weather forecasting the present situation is in terms of calculable units used to make further calculations, the same applies to business: present things are only insofar as organizable for future production: a machine is calculated to last eight more years, management resources are expected to be able to meet anticipated challenges in the next two years. Calculation 'consumes' its units, it 'uses' them up in order to calculate further.<sup>23</sup>

Only because number can be multiplied indefinitely... is it possible for the consuming nature of calculation to hide behind its 'products' and give calculative thought the appearance of 'productivity' - whereas it is of the prime essence of calculation, and not merely in its results, to assert what - is only in the form of something that can be used up. (EB 357) The Postscript to What is Metaphysics?

Calculation serves the will to action "the will to make and be effective". (WCT 25) In calculative representing and the mathematical project man places the world before himself. This placing-here is a producing. (PLT 110) (What are Poets For?) Action is as production: transposition, interposition, exposition all of which being nature to a stand. All this is made possible and carried out through calculation in the service of the will.

The phenomena comprising technology have been taken up singly in the third chapter with the intention of showing how each gets its direction from, has as its governing intention, or manifests in a striking way production as such: Herausfordern. Herausfordern, as

the term 'forder' shows, means to demand, exact or challenge-forth. What it demands is 'producibility' in things. Producibility in a sense previously clarified. It grasps everything it encounters as organizable from the standpoint of production for production's sake. It recognizes nothing as exempt from this process: nothing similar to physis which stands by itself on its own basis. In technology all that belongs to producing and ordering as material, that is, as what is produced. Ultimately even the one who produces is included for he is, as the producer who always seeks more efficacious ways of producing, at the same time producing himself. The producer develops his methods of training and education so that they result in an individual better able to understand and further the production process. The calculation of objects in various object spheres is emphasized. He even alters and arranges his habits and personality so that they more nearly conform to the ends of production. In choosing efficacy, rationalization of methods, and clarification of the qualities of things he chooses ends subsumed under production.

Because no thing stands of itself in this process, no thing has inherent worth. Any object is what it is only from the standpoint of something outside itself, namely from the standpoint of how it can be produced or how it conduces to production. In place of the world-content of things,

...the object-character of technological dominion spreads itself over the earth ever more quickly...Not only does it establish all things as producible in the process of production; it also delivers the products of production by means of the market. In self-assertive production, the humanness of man and the thingness of things dissolve into the calculated market value of a market. (PLT 114-115) What Are Poets For?

This standpoint is determined solely from the exigencies of improved production: the Herstellen of modern technology produces only to do so more efficiently. The ways of assessing the thing, of planning it and determining how it will be made or arranged, taken apart or improved, have as their determining factor the imperative to improve and render production more efficient.

...no one can deny that today technology, industry, and economy, setting the standards for the work of the self production of human beings, determine the reality of all that is real. (PT 57) The Principles of Thinking

This production makes the thing while working out the imperative of producibility in general so that any given thing becomes less an object standing over-against (Gegenstand) and more a coherence of forces ready to be disposed of in terms of whatever the more general demands of organization may require. In the modern age production devotes itself solely to the exigencies of production as such, and no longer to what is appropriate to the thing to be produced.

This production of beings is at the same time consumption.

The consumption of beings is as such and in its course determined by armament in the metaphysical sense, through which man makes himself the 'master' of what is elemental. The consumption includes the ordered use of beings which become the opportunity and the material for feats and their escalation. (EP 103)  
Overcoming Metaphysics

Later in Overcoming Metaphysics Heidegger says this consumption is for '...the unconditional possibility of the consumption of everything...'

(EP 106-107) 'Beings are consumed' in many senses. They are consumed by the production process in that they get all their standing from it, they are consumed by the end which is their sole reason for being: to further secure and develop the process. They are consumed,

finally, because they have no standing of their own.

<sup>1</sup> Critical support for the view that Heidegger takes production to be the fundamental quality of modern technology may be found in Michael Zimmerman, "Marx and Heidegger on Technological Domination of Nature," Philosophy Today vol. xxiii (Summer 1979): 99-112. and in Loscerbo, Being and Technology p. 110 note 4; p. 111 note 7, and p. 119 note ix.

<sup>2</sup> For an account of the unity of the 'stellen' verbs see William Lovitt, "A Gespräch with Heidegger on Technology," Man and World, vol. 6 (1973): 52.

<sup>3</sup> "The technological way of dealing with entities is thus not an activity arbitrarily chosen by man; rather, man is placed within, challenged into, this way of dealing with them by that specific mode of unconcealment itself which Heidegger calls the 'framework' (Gestell)." Biemel, Martin Heidegger An Illustrated Study, p. 140. See also Martin Heidegger "Séminaire de Zähringen," Questions IV trans. J. Beaufret, C. Roels, F. Fédier, J. Lauxerois (Paris: Gallimard, 1973), p. 330.

<sup>4</sup> 'Obliges' because Heidegger speaks as though man is passive and Being reveals itself to him.

<sup>5</sup> As an epoch of Being technology has Being as its essence. This is obscured because "...the will to action...has overrun and crushed thought." Martin Heidegger What is Called Thinking, trans. F. D. Wieck; J. Glenn Gray (New York: Harper and Row, 1968), p. 23. Any confrontation with technology's essential nature requires a step back from the blind persistence of ordering.

<sup>6</sup> "The world becomes a suitable subject of scientific inquiry when it is reduced to the single dimension of extension and number, when its differences have been reduced as nearly as possible to quantitative differences, so that things become appropriate material for calculation." W. B. Macomber, The Anatomy of Disillusion, (Evanston: Northwestern University Press, 1967); p. 200.

<sup>7</sup> "A being thus technologically uncovered stands in a position to be disposed of in a productive process, and the beings of technology are nothing more than this passive stance of waiting to be used by man." H. Alderman, "Heidegger's Critique of Science and Technology," Heidegger and Modern Philosophy, ed. M. Murray (New Haven: Yale University Press, 1978), p. 47. For an account of how Bestand differs from the usual idea of object see Lovitt, "Techne and Technology," p. 68.

8. "In his later writings, Heidegger reassessed the notion of authenticity in light of the fact that in advanced industrial culture, individual human beings seem to be instruments or commodities in the production process. The 'self' becomes the 'personality' which must be constructed with an eye to the demands of the market place." Zimmerman, "Marx and Heidegger and the Technological Domination of Nature," p. 102.

9. "Heidegger claims that for Descartes, Being is still determined according to a certain aspect of time, the present, but now to be means to be presented to the self-certain subject according to the standards of the subject. With the idea of the cogito sum, Descartes asserts that self-certainty is the standard against which is measured the validity of all knowledge." ibid., p. 100.

10. "Heidegger claims that Descartes' philosophy is subjectivism insofar as it admits into reality only those beings (extended objects) which can be known with certainty (thus controlled) by the self-certain Subject. This way of disclosing objects makes possible the manipulative processes which give rise to the age of Technique." Michael Zimmerman, "Heidegger on Nihilism and Technique," Man and World vol. 8 #4 (1975): 396.

11. "The essence of the mathematical is not the numerical or quantitative. It is the a priori, the basis on which cognitive demands can be made of nature." Macomber, The Anatomy of Disillusion. p. 199.

12. "Not the cognitive but the conative, not that which pertains to knowing but that which pertains to doing, comes to the front,... Obviously, doing is possible only through knowing, but here knowing is expressly judged in terms of what can be done with it. Doing, the ability to do becomes the criterion of knowing. Such ability-to is then understood more and more in the sense of having-mastery-over..." Biemel, Martin Heidegger An Illustrated Study, p. 138.

13. "Spirit in the modern age is understood as tool, intelligence. Thus the realms of the spirit, statemanship, religion can be split into disciplines: the spiritual becomes culture, which can be acquired by individuals. Each branch of culture sets its own standards: standards of production and consumption: values. See Martin Heidegger, An Introduction to Metaphysics, trans. Ralph Manheim (New Haven: Yale University Press, 1959), pp. 47-48.

14. "What 'is' Heidegger says, has not always been determined as object. For the Greeks the essent arose and opened itself to man; in medieval times what 'is' was what belonged to the chain of being."

15 "Both (science and technology) are concerned primarily with the determinate as determinable, and for this reason they are essentially endless pursuits, incessantly organizing and reorganizing, repairing and replacing, improving and innovating." Macomber, The Anatomy of Disillusion, p. 204.

16 It should be noted here that the guarantee of effectiveness and doing are what Heidegger considers the fundamental aims of metaphysics since Plato. Consequently, reality as expressed in metaphysics is not a kind of presuppositionless seeing, it is rather what is seen when one aims to perfect doing and effectiveness.

17 "Technology is a method for calling forth and transforming the stock of reality according to will." Edward G. Ballard, "Heidegger's View and Evaluation of Nature," Heidegger and the Path of Thinking, ed. John Sallis (Pittsburg: Duquesne University Press, 1970), p. 48.

18 See Heidegger, What is a Thing, trans. W. B. Barton, Vera Deutsch (South Bend: Gateway Editions, 1967), pp. 69-80 and pp. 88-108 for a detailed account of mathesis.

19 This, says Heidegger, prompted Nietzsche's claim that truth is error. If truth according to Nietzsche is a kind of error, then its essence lies in a manner of thinking which always and necessarily falsifies the real in so far as every act of representation causes the unexposed 'becoming' to be still, and sets up something that does not correspond (i.e. something incorrect) with what has thus been established in contradistinction to the fluent 'becoming'. Heidegger, What is Called Thinking.

20 The ego sets the object before itself when it represents it. The ego is ultimately interpreted as subjectum and as will to will. The will has two requirements: 1) to secure what is at its disposal; 2) on the basis of what is secured to increase its power. Representability is fashioned in the smallest detail and is further developed from the standpoint these two requirements which together constitute the presentation of the will. It carries out the perpetuation and increase of the will and thus the ego as will sets itself before itself as it represents: itself as goal, itself as what determines all representation.

21 Contemporary metaphysics, says Henry, is a metaphysics of the will which makes of everything an object offering itself to the domination of the subject. "C'est alors l'époque des théories de la connaissance qui interprètent d'emblée l'être comme un étant qui est l'objet d'un sujet. Le projet de ces théories de parvenir à une domination inconditionnelle de l'étant est identiquement un projet de parvenir à une certitude absolue." Michel Henry, "Le Concept de L'être comme Production," Revue Philosophique de Louvain #73 (1975): 82.



<sup>22</sup>Causa "...means that which is instrumental, that which produces or fabricates; and it is this sense that dominates our present understanding. Because of the adoption of this sense of 'causa' the idea of the efficient cause overshadows all others and we have come to regard a cause as anything that makes or produces an effect. In consequence of this development man as the maker and producer occupies the center of causality: cause signifies the instrumentality of man." Alderman, "Heidegger's Critique of Science and Technology," p. 45.

<sup>23</sup>"In technology man's relation to everything whatever is, rather, one in which under the impetus of incessant planning and arranging, he puts peremptory and even extortionate demands to everything that confronts him, not in order to disclose it for what it is, but simply in order to amass resources that can be used to push forward processes that are never themselves final but are always being channeled into others, even while the whole complex to which they belong is constantly being redesigned for greater efficiency." Lovitt, "Techne and Technology," p. 68.

## CONCLUSION

A consequence of this interpretation has been to show Heidegger's thinking on what he terms 'metaphysics', that is, on philosophy as it has in his view hitherto mostly been practiced. Part of what it shows is that philosophy grasps Being as matter to be worked on, something to be made or produced, as 'effect'. That is, in fact, the tacit presupposition in all philosophy.

Heidegger's claims about metaphysics and hence also technology imply that objectivity or the real is determined from out of our interests, usually tacit, in particular an interest in doing and making which ultimately has no regard for anything else. If Heidegger is correct, then the real as we understand it, usually termed the objective, is just phenomena rendered up in terms of their usability, producibility, or effect. Contemporary metaphysics, that is, technology, is then no more and no less than a doctrine or doctrines of the producibility of various realms of phenomena with the added characteristic that in each realm we strive less to achieve the ends appropriate to it and more to accomplish the ends demanded of it by producibility as such.

Technological man grasps everything as planable and attempts to calculate everything in an ever more refined way so that it is even more suitable to being planned. Heidegger sums up the result in the following,

The adjustment of all possible strivings to the whole of planning and guaranteeing is called 'instinct'.  
(EP 106) Overcoming Metaphysics

It is the complete lack of reflection and total entanglement in the

sphere of use:

The complete release of subhumanity corresponds to the conditionless empowering of superhumanity. The drive of animality and the ratio of humanity become identical. (EP 106) Overcoming Metaphysics.

'Drive' corresponds to the will which uses technology to order in the service of what is, in the final analysis, only the further ordering and advancement of itself. Rationality accomplishes this. Will is designated non-reflective 'instinct' because it is, like instinct, blind to anything other than itself: it sees only itself and its demands. It is non-reflective because it never questions how it grasps the world; rather it 'reflects' only to perfect its grasp of the world. So, like instinct, it acts, or reacts, without reflection. It is brutal because it is unable to see something in that thing's own terms. It sees only in terms of itself: the requirements surrounding preservation and enhancement.

Subhumanity is the same as superhumanity because everything and everyone are in the extreme fulfillment of this metaphysics only units usable indifferently in further calculations. 'Subhumanity' designates the instinctual, the brutal, that act which is unreflected upon and simply the consequence of prior events. It is action of this sort which would be the rule in the extreme fulfillment of technology. 'Superhumanity' designates technological rationality: it thus corresponds to an idea of man as rational. Superhumanity, as in a certain sense, a very articulate rationality must ultimately concern itself with planning in general without regard to what is to be planned. They are the same because they carry out, without question, the ordering of the world: neither reflects, that is, questions ordering or willing per se. All this planning is production (Herausfordern). The trans-

formation of subhumanity into superhumanity follows upon the full realization of this type of production.

What distinguishes philosophy from other disciplines is that from the very beginning it endeavours to grasp the whole and come to terms with the essential. The upshot of Heidegger's account of metaphysics, in which he strives to bring together our attempts to grasp the whole, is that we have not succeeded: the very attempt to grasp results in an account of Being from the standpoint of doing, efficacy and results. This mode of thinking results in an accomplishment we call technology, and which Heidegger qualifies as the metaphysics of the modern age.

Technology as calculability determines what-is: it is what is amenable to calculation. Yet it is precisely this "...that causes the manifest character of what-is to sink into the apparent void of indifference or...oblivion." (EB 312) (On The Essence of Truth) If what is appropriate to beings completely determines what Being is, then Being as technology is a destiny of Being wherein Being rests in oblivion. (LH 287) Truth is understood now as certainty. This means that Being is "...emancipé dans la façon dont on décide par calcul ce qu'il constitue et dont on planifie et organise ce que l'étant qui lui est conforme offre de machinable." (NII 20). Hence what is capable of being mathematically construed is true. Since the essential in use and production, that is, in willing, is effect, as what is secured and what can be further projected, "The effect proves the correctness of technological scientific rationalization." (TB 72)<sup>1</sup> (The End of Philosophy)

The most important quality of technology and thus of Herausfordern,

which is the way things are made to come to presence in technology, is that it is the danger; Enframing, in fact, is the supreme danger.

Heidegger explains that there has always been a danger:

...the unconcealment in which everything that is shows itself at any given time harbors the danger that man may quail at the unconcealed and may misinterpret it.

(QT 26) The Question Concerning Technology

Instances of the misinterpretation of unconcealment are the interpretation of God as causa efficiens and the interpretation of the world in terms of a causality of making. (QT 26) Both interpretations step back from unconcealment itself and from what is unconcealed and affix a specific understanding to the latter. This done, unconcealment, the foundation, drops out of consideration. But enframing; the destining of Being in modern metaphysics, is the supreme danger.

(QT 26) (The Question Concerning Technology)

As soon as what is unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of objectlessness is nothing but the orderer of the standing-reserve, then...he comes to the point where he himself will have to be taken as standing-reserve. (QT 26-27)  
The Question Concerning Technology

The supreme danger is that with enframing only one form of revealing applicable both to men and things, remains: that form is ordering.<sup>2</sup>

Furthermore, enframing does not even show itself as "...a revealing."

It is not grasped as a way of unconcealment or truth. (QT 27)

Ibid. The consequence of this is that there is no questioning of revealing as such. Nor does man question himself. He does not as Heidegger puts it, encounter his essence "as the one spoken to".

(QT 27) Ibid. That is, as the one in whom unconcealment needs to take place. When he takes up the task of being the orderer of the

Bestand without question, he is invariably under the illusion that as such he is lord of the earth and never encounters anything but what the instruments he has made subdue and organize.

The danger as it applies to man involves the loss of his essence as responsive to Being and as the locus of unconcealment. The danger has another characteristic,

But the danger, namely, Being itself endangering itself in the truth of its coming to presence, remains veiled and disguised. This disguising remains what is most dangerous in the danger. (QT 37) The Turning

How is Being's coming to presence veiled and disguised? It is not that nothing comes to presence. Enframing as what moves man to reveal beings as standing-reserve i.e., as objects of scientific investigation, comes to presence. Thus something is present. This very presence and the ceaseless activity it involves seems to obviate the need for any questioning. This very presence is the disguise for it removes the need to question presence as such- Being, and its truth, unconcealment. Both are obscured in all the activity.

In the entrapping, what comes to presence is this, that Being dismisses and puts away its truth into oblivion in such a way that Being denies its own coming to presence. (QT 43) The Turning

The danger inherent in the metaphysics of the modern age, and to a lesser extent in previous metaphysics, is simply that the meaning of Being is misunderstood, and as a consequence the meanings of truth and man's essence remain unfulfilled.

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<sup>1</sup>That man grasps everything in this way as orderable from the standpoint of mathesis as thus 'as his own doing' is a consequence of a particular way in which Being has destined itself (Geschick). As taking part in revealing man continually faces the possibility of revealing only what can be revealed in terms of ordering and of deriving all his standards therefrom. Heidegger, "The Question Concerning Technology," p. 26.

<sup>2</sup>"The 'essence' (Wesen) of Technik is nothing technical or technological, but is the way in which Being presents (an-west) itself as objectivity or representability: to be is to be calculable, manipulable, exploitable by the self-certain Subject, which now regards itself as the goal and meaning of all history". Zimmerman, "Marx and Heidegger on the Technological Domination of Nature," p. 100.

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