CHAPTER THREE

FROM TECHNOLOGY TO ECOLOGY
3.1.0 On Heidegger and Technology

In the previous chapter we made an investigation into the fundamental ontology of Heidegger from the perspective of ecology. This investigation was guided by two key concepts, viz. a framework of interrelationship and a move to de-center the subject. We made a study of the various dimensions of Heidegger's elucidation of Being-in-the-world. We saw clearly how he articulated the interrelationship in existence as Being-in-the-world. We noted further how his elucidation goes beyond a subject-centered approach. This has enabled us to affirm that Heidegger has gone beyond a crude sense of anthropocentrism.

We now move on to Heidegger's critical examination of science and technology. It is obvious that we do not undertake this from a purely disinterested and technical concern. It is done with a hope to identify the ecological dimensions implicit in his explication of the meaning of technology. Does his critique of technology provide possibilities for developing ecological sensitiveness? Can we with the help of his critique promote the possibilities of de-centering the subject? What is the ecological significance of the meditative thinking that Heidegger proposes in the
place of calculative thinking that is operative in the technological domain? What are the possibilities opened up by *gelassenheit*? Does it open up the possibility of existence in which the ecological sensibility will be enhanced? These are some of the guiding questions that will enable us to draw out the ecological implications in Heidegger's examination of technology.

Martin Heidegger is perhaps one of the few philosophers who has made a path-breaking critique of the whole question of technology. Historical records show that he addressed himself to the question of technology from the year 1949 onwards. We rely, for our study, on the effort made by William Lovitt who collected various essays of Heidegger regarding the theme of science and technology. The essays were put together from the different volumes of his original works with Heidegger's concurrence and were brought out under the title of *The Question Concerning Technology and Other Essays*.

Technology is the characteristic of our age. It may be defined as "the organization of knowledge for the achievement of practical purposes." It is a set of skills, techniques, and activities for the shaping of
materials and the production of objects for practical ends. The scientific advancements and technological growth have made man overcome distance, get things done faster, and increase productivity. The potentiality of modern technology and the vast expansion that it makes is common knowledge. It is true that technology has made human life easier and bright. But there is a dark side to the bright picture. We are all well aware of the havoc played by the unbalanced use of science and technology. It is reflected in the growing ecological crisis, the problem of nuclear wastes and a host of other problems negatively affecting life. Thus the phenomenon of technology has become a mixed blessing indeed! One can identify three interrelated meanings of technology. First of all technology referred to the techniques, devices, systems and production processes that are associated with industrialization in general. Secondly, technology can refer to the rationalist world view usually associated with modernity. Modernity manifests a strong scientific, anthropocentric and secular world view. Thirdly, it referred to contemporary way of understanding or disclosing things that make both industrial production process and the modernist world view possible. As far as Heidegger is concerned, the third
meaning of technology is extremely important. He is of the view that both meanings of technology, viz. industrialism and modernity are symptoms of contemporary disclosure of things as raw material to be used for expanding the scope of technological power. He clearly sees that man's thirst for domination and calculative manipulations of entities are manifested in its extreme possibility in science and technology. The calculative thinking inherent in the technological age glorifies the subject and thus metaphysics realizes its ultimate possibility of the subject's domination over reality. Heidegger was convinced that raising anew the question of Being can restore human being to the dignity of his essence. This demands a new type of thinking which releases human being to be attuned to the granting of Being. It is in this background that Heidegger raises questions concerning technology. His perspective is to inquire into the essence of technology. He hoped that his explication will clarify the horizon of technology in its relationship to human existence:

We shall be questioning concerning technology and in so doing we should like to prepare a free relationship to it. The relationship will be free if it opens our human existence to the essence of technology. When we can respond to this essence, we shall be able to
experience the technological within its own bounds.  

In order to achieve this Heidegger proceeds to free the phenomenon of technology from its familiar interpretations.

3.2.1 The Familiar Interpretation of Technology

It is quite usual to understand and explain technology in naturalistic and instrumentalist terms. This happens when technology is seen as a means to an end. It is explained further as a human activity too. The usual way of understanding the phenomenon of technology proceeds from the presupposition that it is merely an invention of a subject and functions as a mere neutral instrument. The instrumental and anthropological definitions of technology see human consciousness in an evolutionary context. In the process man learns to adapt to a variety of situations. The capacity for adaptation helps human beings to make use of symbols and tools. Modern technology, from such a perspective, is simply a sophisticated version of the tools used by primitive man. The difference is that of the quality of scientific application and better skill. Heidegger did not deny the value of such assumptions. According to him, they are correct, but not yet
sufficient to open our human existence to the essence of technology. Obviously, here Heidegger would employ the distinction between correct and true. According to him, the true, and by this he means his own version of truth as unconcealment, aletheia, must be given priority over the merely correct. "Only the true brings us into a free relationship with that which concerns us from out of its essence." As usual, his approach is one of inversion whereby the familiar and the apparent are explained by the unfamiliar and here he would approach the true by way of the correct.

3.2.2 Analysis of Causality

Instrumentality and means and end belong to the domain of the fourfold causality of Aristotle. Cause is understood as that which brings about an effect. Such a definition presupposes the priority of the efficient cause over the other causes. It sets the standard for all causality. This observation of Heidegger implies that the priority accorded to efficient cause results in considering the effecting or producing the standard relation to things. Moreover, what we understand by cause as bringing something about and effecting need not be the original Greek conception of cause. They derived the word 'cause' from aition and it meant,
that to which something else is indebted." Causality from this perspective is the way in which the four causes belong together and are responsible for something else. For example, the material cause of a silver chalice -- a sacrificial vessel used in the Christian worship -- is the silver that it is made out of. It is co-responsible for the chalice because it provides the matter. The vessel is indebted to the form of chaliceriness due to which it remains a chalice and not anything else. The responsibility of the final cause is realized when it is confined to the level of consecration and bestowal. The silversmith is the fourth participant in the responsibility for the finished vessel. "The silversmith considers carefully and gathers together the three aforementioned ways of being responsible and indebted." Here Heidegger draws out original reflections from the German and Greek equivalents of "to consider carefully." Thus the coming into appearance of the chalice is the play of the fourfold ways of being responsible. Clearly, Heidegger has moved beyond the interpretation of causality from the perspective of making and the consequent importance attached to efficient cause.

It is from the character of being responsible and indebted to that Heidegger moves to the primal meaning
of causality. What are these four ways responsible for? They are responsible for the presencing of something into appearance.

They set it free to that place and so start it on its way, namely, into its complete arrival. The principal characteristic of being responsible is this starting something on its way into arrival.

The Greeks, according to Heidegger, experienced in *aitia* a sense of 'occasioning,' a way of what is not yet present as arriving into presencing. It is here that Heidegger sees the connection between this process and *poiesis* (bringing-forth). Heidegger finds confirmation to this in Plato and he quoted from *The Symposium*. "Every occasion for whatever passes over and goes forward into presencing from that which is not presencing, is *poiesis*, is bringing-forth [Her-for-bringen]." Heidegger observed that when one thinks the full scope of bringing-forth one finds the connection not only with *poiesis* but also with *physis*. *Physis* for him is the event of self-emergence and it is something like the bursting forth of a bud into a flower. It is also the disclosive event that makes the appearing of entities possible. Reflections on bringing-forth along these lines enabled Heidegger to see the 'belonging together' of the fourfold causality.
Causality as the fourfold way of occasioning brings into appearance that which is concealed.

Bringing-forth brings hither out of concealment forth into unconcealment. Bringing-forth comes to pass only insofar as something concealed comes into unconcealment.\(^{14}\)

This whole process is what Heidegger understood as truth or *aletheia*.

Thus his inquiry regarding the essence of technology has brought him to the realm of revealing or unconcealment. The unity and difference of concealing and revealing is very important in Heidegger. Some would consider it as the backbone of his thinking.\(^{15}\) His thinking is anchored in the very belonging together of Being and man. But this very belonging together is of such a nature that there is a duality of revealing and concealing. They are not two separate activities. The presencing of Being is the dimension of revealing. "What is withdrawn or concealed is not anything but the very revealing itself."\(^{16}\) In other words, the revealed is present, while the revealing is absent. "As it reveals itself in beings, Being withdraws."\(^{17}\) The word unconcealment utters the inseparable unity of concealment and revealment and that of Being and entities. "Being never presences
without the entities, and entity never is without Being."^{18}

This has opened up the possibility to see technology as the realm of revealing. "Technology comes to presence[West] in the realm where revealing and unconcealment takes place, where aletheia, truth, happens."^{19} Instrumentality that is considered to be the fundamental characteristic of technology, and ends and means belong within this domain of revealing. However, it might give the impression that techne as poiesis and as revealing is applicable only to the Greek era. The name technology stems from the Greek word technikon. And it means that which belongs to techne. It can mean two things. First, it is the name for the activities and skills of the craftsman. Second, it refers to the arts of the mind and the fine arts. Besides, techne is linked with episteme for both are knowing in the widest sense. In this sense it provides an opening for the manifestation of that which is not brought to appearance.

3.3.1 The Essence of Modern Technology

The single-minded concern of Heidegger is to arrive at the revealing that dominates in modern technology.
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.\textsuperscript{20}

In other words, the revealing that dominates in modern technology is a one-dimensional mode of viewing things. This one-dimensional view comes to be concretized in seeing things as raw material.

That challenging happens in that the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is, in turn, distributed, and what is distributed is switched about ever anew. Unlocking, transforming, storing, distributing, and switching about are ways of revealing.\textsuperscript{21}

The net result is that everything is ordered and regulated so that they may be ever ready to provide energy at the beck and call of man. The whole phenomenon is summed up in the expression Bestand\textsuperscript{22} (standing-reserve). The term Bestand, obviously, has connotations of stockpiling of things. But Heidegger has in mind the very presencing of things as provoked or challenged to reveal in a particular manner.
3.3.2 The Essence of Modern Technology as das Gestell

Modern technology is no mere human doing. There is a challenging revealing that gathers man to order things as Bestand. "We now name that challenging claim which gathers man thither to order the self-revealing as standing-reserve: 'Gestell' [Enframing]." It is the key expression for the nature of modern technology. It means that way of revealing which governs the orientation of modern technology, and implies a particular understanding of the Being of man and of entities. It is obvious that it is nothing technological.

Heidegger himself acknowledged that Gestell is a very unfamiliar word. In ordinary parlance, the word Gestell means some kind of apparatus, for example, a book-rack. It signifies a framework that holds things ready for use. This explains the rendering of this as "enframing" in English. Accordingly everything is framed, ordered and classified so that they could be used at convenience. The German word contains the prefix ge which refers to a collectivity as in Gebirg (a mountain range). This is followed by the root verb stell which means "to put or place." The combined word thus brings together all the modes of stellen where it
has the additional connotation of "to put a demand on." Gestell thus means the linking together of what is posited by the technologically oriented subject. Words derived from and related to Gestell stand for 'mobilization,' 'to report for military duty,' etc. Besides, the image of military mobilization provides a realm where everything is supposed to be set in order, waiting to be used at a moment's notice.\textsuperscript{25} Gestell, in short, means that all things are placed in the same manner as raw material. It is something that stamps humanity to disclose everything in a one-dimensional manner.\textsuperscript{26}

The essence of technology as enframing has enabled Heidegger to point out a corrective to our usual assumption that modern technology is an applied physical science. Modern technology from the point of view of chronology is a later phenomenon. Modern physical science began in the seventeenth century, whereas the machine power technology developed only in the second half of the eighteenth century. According to Heidegger, from the point of view of the essence holding sway within it, modern technology is historically earlier. The import of this inversion is that the essence of technology is inherently related to the history of Being. The essence of technology is the very
mode of Being's revealing in the modern age. Thus, in the pervasive presence of modern technology, Heidegger sees the holding sway of a "destining" or "sending forth" of Being. This destining or sending forth of Being has come upon man and molded him and his world.28

3.3.3 Gestell and the Danger

The essence of technology lies in enframing. There is a great danger involved in the destiny of Being as enframing. In the technological age enframing holds sway and consequently man

is continually approaching the brink of the possibility of pursuing and pushing forward nothing but what is revealed in ordering, and of deriving all his standards on this basis.29

This blocks the other possibility of being admitted "to the essence of that which is unconcealed and to its unconcealment, in order that he might experience as his essence his needed belonging to revealing."30 The supreme danger, in other words, comes to us in two ways. First of all, man himself is in the constant possibility of becoming a part of the standing-reserve. This happens because man is the orderer of the standing-reserve. We have seen that in the exclusive concern of seeing everything as standing-

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reserve, things are not even seen as objects. In the midst of objectlessness man himself will have to be taken as standing-reserve. Secondly, the technological man, threatened by this possibility, reacts by asserting himself as the lord of the earth. Thus he encounters everywhere none but himself. Consequently, he fails to become a listener and fails in every way to see himself as one who ek-sists. Heidegger is not intending that technology itself is the danger. What is dangerous, according to him, is the essence of technology that reveals everything as standing-reserve and its consequent effects. "The rule of enframing threatens man with the possibility that it could be denied to him to enter into a more original revealing...."

The extreme danger is not without its saving power.

What we experience in the frame as the constellation of Being and man through the modern world of technology is a prelude to what is called the event of appropriation. Heidegger stated elsewhere that enframing is the photographic negative in terms of the event of appropriation. It is evident that a negative of a photograph contains the possibility of positive prints.
It is this thought pattern that enables Heidegger to quote Hölderlin:

"But where danger is, grows
The saving power also."

This does not mean that saving power appears incidentally or that it is secondary to the danger or that it takes place without preparation. "The danger is the saving power, in as much as it brings the saving power out of its -- the danger's -- concealed essence that is ever susceptible of turning." The expression "turning" points to a "turning inward" and it has such a power that in its intensity it awakens the spark of a future memory. It is a turning at the heart of the Technik.

Heidegger sees that the word "save" has extraordinary meanings. To save is not a matter of seizing hold of a thing threatened by ruin. "To save" is to bring something home back into its essence, "It means to loose, to emancipate, to free, to spare and husband, to harbor protectingly, to take under one's care, to keep safe." He pointed out that if we take the poet's words seriously, then the essence of technology must bear in itself the growth of the saving power. The step he suggested is to "look with yet clearer eyes
into the danger." This would entail that we "consider in what sense of 'essence' it is that Enframing is actually the essence of technology?" Here Heidegger calls for a deeper reflection on the term "essence." The essence of technology is not an essence in the sense of a genus. "Enframing, as a destining of revealing, is indeed the essence of technology, but never in the sense of genus and essentia." Essence is that which endures and holds sway and that which comes to presence. "Wesen understood as a verb is the same as währen [to last or endure], not only in terms of meaning but also in terms of the phonetic formation of the word." It is here that Heidegger saw the essential connection between the danger and the saving. They are not only a phonetic relation but also "the way in which technology essences lets itself be seen only from out of that permanent enduring in which Enframing comes to pass as a destining of revealing." The essence of technology as enframing is itself a granting, for "every destining of revealing comes to pass from out of a granting and as such a granting." The saving power is recognized in the granting, for it enables one to enter into the highest dignity of one's essence. "This dignity lies in keeping watch over the unconcealment -- and with it, from the first, the
concealment -- of all coming to presence on this earth.""\(^45\) Thus enframing threatens man the freedom of his essence, but it is precisely in this extreme danger that the innermost indestructible belongingness of man within granting may come to light, provided that we, for our part, begin to pay heed to the coming to presence of technology.""\(^46\)

Thus in the coming to presence of technology the possible arising of the saving power is included but we do not suspect it at all. As the Gestell reaches its zenith in modern technology, it pushes towards its own displacement. "In the homogeneities of the modern epoch, the metaphysical drive to presence comes full circle and thus has the potential to invert itself.""\(^47\) It is Heidegger's strong belief that this whole process would happen only if we think. The most important question is this: "How must we think?""\(^48\)

3.4.1 The Pathway beyond Technology

Heidegger's analysis of the danger and his subsequent reflection on the inherent saving power points a way out. But this does not mean that there is a ready-made solution to the danger of technology. He firmly believed that the way beyond lies in restoring
the authentic meaning of technology. According to him, the authentic meaning of technology should be found in techne. Techne is a kind of making which discloses things appropriately. The pathway beyond technology is something very dear to Heidegger. We can identify two winding ways in this movement. The first way could be his reflections on techne as art which would go beyond the enframing and disclose things appropriately. The second movement is a moving away from das gestell to gelassenheit.

3.4.2 Techne as Art

The word techne, which is the source of technology, is often translated as 'fine art' and 'handiwork.' Heidegger would maintain that the primary meaning of this Greek term should not be seen in skilled handiwork. The primary meaning of techne is art.49 Techne is understood as the capacity for disclosing something, for bringing it forth, for letting it to be seen. It meant the event of bringing something into the open and the know-how required for accomplishing it. This is where Heidegger sees the connection between techne and art.50 He was not interested in the technicalities of art. But his interest was in seeing the disclosive power in art. The
artist, according to him, founds the world in which the activity or producing, letting things be, can take place. A way out of the technological fix is to become capable of authentic producing:

Authentic producing, then, understood in terms of the Greek insight, involves disclosing something appropriately, letting it come forth into its own, bringing it into the arena of accessibility, letting it lie forth as something established stably for itself. To "pro-duce" something means to lead it forth (pro-ducere), to release it so that it can manifest itself and linger in presence in its own way.

As against this type of authentic producing, what has happened in the technological domain is the domination of "productionist metaphysics." The productionist metaphysics is the legacy of the history of the West. In fact, the history of the West is the story of how the "productionist metaphysics" of the ancient Greeks gradually degenerated into modern technology. The Greek founders of metaphysics defined the being of entities in a proto-technological way. Heidegger read Plato as the initiator of this metaphysics. Plato conceived the being of entities in images drawn from human manufacturing. His concept of ideal Form was drawn from the role played by the blueprint or model in the work of a craftsman. The craftsman's blueprint
provides the structure for the thing he makes. Similarly, the eternal Form provides the structure for things which come to be in the temporal-empirical world. Productionist metaphysics became a foundationalist metaphysics for the assumption is that for something to be, it must rest upon some ultimate foundation.

In his critique of technology, Heidegger has shown that the productionist metaphysics has encouraged ways of producing which became increasingly blind to the manner of work, to the material used in the works and the nature of the works produced. Heidegger's examination of causality and the de-emphasizing of the efficient cause has to be seen in this background.

3.4.3 From das Gestell to Gelassenheit

Heidegger sees the possibility of overcoming technicity through the thinking of Being. He would like to characterize his path of thinking by an old German word called Gelassenheit. The word Gelassenheit comes from the root of the verb lassen. And, it means to let go, to relinquish, to abandon and in the Heideggerian literature it is translated as "releasement." According to Heidegger, Gelassenheit refers to a type of thinking that is freed from the constructions of the
thinking subject and tries to gain access to a region that is freed from such obstructions.

We have seen earlier that Heidegger did not leave the analysis of the danger inherent in the technological domination as it is. He understood that a genuine response to the danger should come in the manner of thinking. Hence the importance of the question "How must we think?" His reflections in Gelassenheit, translated into English as Discourse On Thinking, is an attempt to respond to this question. In the Memorial Address he raised the question directly. "What attitude should we take toward technology?" His answer was in the following manner:

We can use technical devices... and also let them alone as something which does not affect our inner and real core... But will not saying both yes and no this way to technical devices make our relation to technology ambivalent and insecure? On the contrary! Our relation to technology will become wonderfully simple and relaxed. We let technical devices enter our daily life and at the same time leave them outside, that is, let them alone, as things, which are nothing absolute but remain dependent on something higher. I would call this comportment toward technology which expresses "yes" and at the same time "no," by an old word, releasement toward things.
Our concern in the analysis of Gelassenheit is to see how this rich and old concept provides a response to the enframing power of technology and consequently, to bring out the ecological sensibility inherent in it. We shall adopt the following procedure. First, we shall present in a summary manner Heidegger's own attempt to clarify the notion of thinking. Second, we shall inquire into his critique of Western metaphysics as ontotheology. According to him, the representative thinking and calculative thinking are manifestations of the ontotheological character of metaphysics.

3.5.1 Thinking in Heidegger

Heidegger devoted much of his energy to bring out the essential aspects of thinking. In fact thinking was his sole concern. This does not in any way mean that he deviated from the single-minded concern of Seinsfage. Rather, Heidegger was convinced that the question of Being demands that one thinks through towards essential thinking. We have already made a mention about Discourse on Thinking where he tried to bring out the nature of essential thinking. One can further find Heidegger's reflections on thinking in the lectures delivered at the University of Freiburg in the year 1951-52. It was later published in English as What is
Called Thinking? Further in his work on An Introduction to Metaphysics Heidegger inquired into the relation of thinking -- from the perspective of tradition, such as the early Greek thinking -- to Being. Further we should note his penetrating inquiry in his essay "On the Principle of Ground" where he examined the dominance of calculative thinking.

Heidegger followed a negative way in bringing out the essential aspects of what he called thinking. This negative way consisted in pointing out some of the aspects that are opposed to what he called thinking. Thus thinking is not understood as having an opinion or a notion. It is not a representation. He examined the various ways of linguistic usage related to thinking. All the various ways in which we use thinking point to the fact that thinking brings something before us. In short, for us, it is a representation. Further thinking is not an instance of logical reasoning leading to a conclusion from the premises, though many would consider that as the paradigm of thinking. Thinking finally is not conceptual or systematic in the sense of the Hegelian idealistic tradition where the concept is considered thinking par excellence. Heidegger would further note that thinking has an inherent weakness that it cannot produce results as people normally
expect. First of all it does not bring knowledge as the sciences do. It does not produce practical wisdom. One should not approach thinking to solve cosmic riddles. Finally thinking is not something that will endow us directly with the power to act. Such a perspective enables Heidegger to maintain that, "Thinking begins only when we have come to know that reason, glorified for centuries, is the most stiff-necked adversary of thought." The force and power of Heideggerian reflections on thinking will be felt if we first of all follow his critique of traditional Western thinking.

3.5.2 Metaphysics as Ontotheology

The nature of thinking that dominated traditional metaphysics has been rightly named by Heidegger as onto-theology. This combined expression brings out the inherent nature of Western metaphysics which Heidegger sees as a combination of ontology, logic and theology. The standpoint for Heidegger to view the whole of the metaphysical tradition is that of the forgetfulness of Being. The forgetfulness is manifested in the transformation of aletheia, physis and logos into logic dominated concepts, and he sees the change in the following manner.
Heidegger finds in the thinking of Plato and Aristotle a "beginning of the end of the great beginning," \(^{64}\) where physis and logos are interpreted differently and thus lose the initial meaning. The early Greeks experienced Being as physis. The word physis denoted the emerging power. It is Being itself and refers to the realm of things that emerge and abide. But Plato interpreted Being as Idea and this rendering had a dominant influence on Western thinking.

The word Idea refers to vision. "Idea ... is a determination of the stable insofar and only insofar as it encounters vision." \(^{65}\) The eidos (Idea) is that which constitutes the essent. Being-seen becomes the sole and decisive criterion of Being. This leads to the following consequence, viz. the Idea comes to constitute the whatness of an essent, and whatness constitutes the most real element in an essent. Thus being as Idea is the true being and measure of reality. Appearance lacks true reality from the perspective of Idea, and it becomes a copy of the Idea. Appearance thus comes to be degraded. This process has important consequences for truth. Truth is no more the unconcealment of the essence of the emerging power, but it becomes the representation and correctness of vision.
Heidegger recognizes another transformation in the history of metaphysics. If the first one was Plato's interpretation of physis as Idea, then the second one centered around Aristotle's understanding of logos as statement. According to the early Greeks, and specially for Heraclitus, logos meant the gathering or bringing together into unity. It is that by reason of which entities are gathered together and held fast. 

"Logos is the Being of entities in the sense that it is a gathered togetherness and contains in itself a collectedness.

Logos is derived from legein which primarily means to gather or to collect. Legein also means word or speech and thus stands for language. In the development of Western metaphysics and specially in Aristotle, there emerged a particular understanding of language. Instead of seeing language as saying and gathering, Aristotle interpreted logos as statement. A statement can be asserted, repeated and its truth value can be ascertained. According to Heidegger, logos which originally referred to the unconcealment of entity, and hence aletheia, becomes a statement and the criterion of truth is correctness."
Heidegger finds that the interpretation of logos, as 'to say something about something,' is a representation in the sense that Being becomes that which is represented. In a statement an essent may be represented in various ways:

Because, as modes of being-said, they are derived from logos -- and because to state is kategorein - the determination of the being of the essent are called kategoriaio, categories. ... the goal of all ontology is a doctrine of categories. 69

According to Heidegger, this process is the logical extension of Being

Another milestone is the theological extension of logos. It is found in the Christian interpretation of Jesus Christ as the Logos. In the first chapter of his Gospel, St. John portrays Jesus as the eternal Logos who took the human form so that he could be the mediator between man and God. The New Testament notion of Logos was originally developed by Philo of Alexandria whose doctrine of creation attributes to the Logos the function of mediation. 70 Logos, in the Greek translation of the Old Testament, refers to the "word" with the definite meaning of command and commandment. Thus logos refers to the messenger who gives commands and commandments. Logos is Christ himself as the
mediator and redeemer. It is obvious that *logos* in the *New Testament* is not at all what Heraclitus meant by *logos* as the gathering gatheredness. Rather it refers to one essent, namely Jesus Christ. Heidegger finds the theological extension of *logos* in this process. The thinking that dominates metaphysics seen from the three-fold extension of Being is ontotheology for Heidegger. Thus metaphysics as ontotheology is inherently representative thinking and it takes the specifically calculative mode in science and technology.

Metaphysics moves in the sphere of beings as beings. The orientation of metaphysics is to consider the beingness of beings. Metaphysics is ontology insofar as it considers beings in their abstracted universal and fundamental trait of beingness.

However, Heidegger views the whole thing differently in his *Identity and Difference*. He points out that metaphysics is not only ontology but it is theology as well.

But metaphysics represents the beingness of beings [*die Seiendheit des Seienden*] in a twofold manner: in the first place, the totality of beings as such with an eye to their most universal traits, but at the same time also the totality of beings as such in
the sense of the highest and therefore divine being.\textsuperscript{71}

The metaphysical inquiry into entities as grounded in the highest entity leads to the metaphysical notion of God. What is important to note is that both ontology and theology are logies since they provide the reason for beings in statements. Ontology and theology are not to be seen as two divisions in metaphysics. They are to be seen rather as a single unity, and the one necessarily implies the other.

It should be clearly noted that Heidegger's criticism of metaphysics as ontotheology is not to be mistaken as atheism. He has clearly noted that he would like to go beyond the categories of theism and atheism. He states:

Someone who has experienced theology in his own roots, both the theology of the Christian faith and that of philosophy, would today rather remain silent about God when he is speaking in the realm of thinking. For the ontotheological character of metaphysics has become questionable for thinking, not because of any kind of atheism, but from the experience of a thinking which has discerned in ontotheology the still unthought unity of the essential nature of metaphysics.\textsuperscript{72}

There is ample possibility for developing an authentic thinking of the Divine from the perspective of the
But our concern here is to point out that metaphysics as ontotheology is an instance of the type of thinking from which Heidegger would like to distance himself. He would refer to this type of thinking as representational thinking in essence. It is the representational and intellectual concepts that dominate the ontotheological nature of thinking.

3.5.2.1 Representational Thinking

Metaphysics as ontotheology is representational in its true nature. It was evident in the oblivion of Being that took place in Plato and Aristotle. When Plato interpreted Being as Idea, truth turned out to be the correctness of vision and representation. Similarly when Aristotle perceived logos as statement and a doctrine of categories, Being became that which is represented in a statement. The crucial ontological question of the Being of entities came to be dominated by ratio. This domination reaches its zenith in logic which "is regarded as a court of justice, established for all eternity." Heidegger wants to point out that in the metaphysical tradition thinking becomes nothing but the representation of ideas. Logic as the ultimate arbiter has crossed its own boundaries and trespassed into the domain of Being. It is evident for him that a
logic dominated metaphysics is incapable of bringing about the question of the Being of entities. The representational nature of thinking became more and more manifest in the subjectivist orientation of metaphysics of the modern period. In his essay on "The Age of the World Picture," Heidegger considers at length how the world becomes a picture to the representing subject.

The fundamental event of the modern age is the conquest of the world as picture. The word "picture" (Bild) now means the structured image (Gebild) that is the creature of man's producing which represents and sets before. Thus to represent means to bring before oneself something as standing over against. This is what the etymology of the word object connotes. According to Heidegger, representation is an objectification and an affirmation of the fact that the representing subject is the sole criterion. Representation is not a comprehension of that which presents. It "is making-stand-over-against, an objectifying that goes forward and masters." Quoting Nietzsche, Heidegger would maintain that the metaphysical man has been "blinking" and thereby forming or representing ideas without going into the essential ground.
Heidegger further brings out the dominance of representational thought in his reflection on "The Principle of Ground". Leibniz' principle of sufficient reason became so natural with the human mind that we are always on the lookout for the 'reason' for everything. Heidegger finds that the very content of the principle and its emphasis on ratio manifests the definitive establishment of representational thinking. In a later treatise Leibniz referred to the principle of contradiction and the principle of returning reason as the primary principle. The principle of returning reason (Rationem reddere) renders the truth of something by rendering its reason. Truth, thus, is true proposition or true judgment. A judgment manifests the connection between the predicate and the subject. It is reason that supports the connection between them. Reason is returned to man whose judgment determines objects as objects:

Only by means of the ground of the representational connection that is rendered to the ego and expressly presented to it, does what is represented thus come to stand [kommt...zum stehen] in such a way that it is certified as an object [Gegenstand], that is, as an object [Objekt], for the representing subject.
Heidegger finds etymological similarity in ratio and the meaning of the German word rechnen which means to calculate. Calculation is another form of representation for him. We represent something over against us in calculation and thus bring it to stand.

3.5.2.2 Calculative Thinking

Representational thinking takes a specific mode of calculative thinking in modern science and technology. According to Heidegger science by its very nature cannot be concerned with the thinking of Being. It is this inability of science to think the question of Being that is hidden in his now ill-famed expression, "Science does not think." He would further maintain that, "science does not think in the way thinkers think." This apparently condescending and unfavorable expression points to the fact that science does not move in the dimension of thinking. It is dependent upon this dimension without knowing it. Commenting on this expression in a conversation that took place in the late sixties, Heidegger maintained that "it is not a reproach but is simply an identification of the inner structure of science." Does it imply that authentic thinking need not pay any attention to the sciences? Heidegger would maintain that the statement "science
does not think" is "not a license under which thinking is free to set itself up out of the blue, so to speak, simply by thinking something up." According to Heidegger, science means any discipline or branch of knowledge. Normally, any natural science is science for us. But for Heidegger, a discipline such as history, with its representing of historical events as causal sequences, is equally a science.

The calculative character of science is inherent in the very scientific method. Heidegger sees that the very notion of research is the distinguishing feature of the modern scientific method. There are three essential ingredients to modern scientific research." They are, the rigour of procedure that necessitates mathematical precision, experimentation that requires calculative measurement and increased specialization that results in institutionalization. The technological attitude manifests the scientific thinking in a more aggressive manner.

We have examined the ontotheological nature of metaphysics and its influence on the thinking of our times manifested in science and technology. We shall move on to Heidegger's perspective on authentic thinking.
3.5.4 Authentic Thinking

We have already seen the various ways of commonly accepted meanings of thinking which Heidegger would consider as a degeneration of thinking. It is a degeneration because all of these ways consider thinking essentially related to our faculty. In essence it is rational and a glorification of reason. Now it is time that we bring out the salient features of Heidegger's authentic thinking. Authentic thinking is a thinking of Being which enables us to think the truth of Being. Heidegger develops this notion from a historical perspective in his An Introduction to Metaphysics.

According to Heidegger, thinking is authentic when it stands with Being. His reflection thus is a call to return to the origins. It is a call to think the nature of thinking that is part and parcel of Being. The usual way to consider thinking as a reality operative in the field of logic relates it directly to its linguistic source, namely, logos. The early Greeks did not understand logos as word or thought as it is usually understood.

The original meaning of logos is gathering. It is the primal gathering principle that gathers entities as
they are "hurled back and forth from one opposition to another." In this sense logos is Being itself as physis, understood as the emerging power. "It does not let what it holds in its power to dissolve into an empty freedom from opposition, but by uniting the opposites maintains the full sharpness of the tension." Logos thus is the steady gathering of the essent in its Being. Heidegger understood this process as aletheia or unconcealment, the way the essents come into their Being.

To be a man means to take gathering upon oneself, to undertake a gathering apprehension of the being of the essent, the sapient incorporation of appearing in the work, and so to administer (verwalten) unconcealment, to preserve it against cloaking and concealment.

Authentic thinking, for Heidegger, culminates in Gelassenheit. Heidegger acknowledges that this is an 'old term'. Its meaning is essentially related to the German mystical tradition, especially that of Meister Eckhart. He had a lot of respect for this great thinker of the twelfth century. There are seven references to Meister Eckhart in the writings of Heidegger. We can very well see the deeper affinity in the thinking of Being of Heidegger and the mystical thinking of Meister Eckhart.
Eckhart's speculative mysticism is centered on the relation between God and the soul. Gelassenheit becomes significant in this context. The soul prepares for the coming of God by releasement which has a twofold structure. The first structure is that of detachment which has a negative connotation. The goal here is to reach a state where one will be empty of all creatures. The second structure has a positive connotation and the goal here will be to reach a state where the soul will be filled with God. Releasement for Eckhart then is a 'letting' the world go, and a 'letting' God come in. The soul in the disposition of releasement lives without a why as God himself is. We shall be focusing on the ecological implications of this concept as we proceed.

Heidegger uses various names to refer to the thinking of Being. He uses such names as 'meditative thinking,' 'essential thinking,' 'recollective thinking 'courageous thinking' and 'primordial thinking.' In the context of his work, What is Called Thinking? Heidegger understands the nature of authentic thinking as a call. He mentions four possible modes of understanding this title. First of all it could be an examination of the meaning of the word thinking. Secondly, what do we still understand today by
thinking? Thirdly, what is it that directs us into thinking? Fourthly, what is it that calls us to think? Heldegger observes that of all the four modes, the fourth mode takes priority over all others forms. Moreover, all these four modes are pointing to a single meaning, namely, what is it that gives direction for thinking? This enables him to point out that authentic thinking involves a call from Being that evokes thought in man and a response from him. The 'call, in what is that which calls on us to think, is not an occasional direction that comes to us now and then to be engaged in some thinking. In other words, thinking is not an occasional activity in human beings. It is the essence of man in the sense that man is a thinker only by the virtue of the call to think. Heldegger clarifies that the verb "to call" opens to us a rich variety of meanings such as to instruct, to demand, and to direct. He points out that in Greek and in Sanskrit the emphasis of meaning is not so much 'to command' as 'to let reach, 'to invite,' with an added nuance of helpfulness. Hence in the word 'to call' we should hear meanings that point 'to commend ' to entrust, 'to give into safe-keeping,' to keep safely, etc.

That which calls us to think in this way presumably can do so only insofar as the calling itself, on its own, needs thought.
What calls us to think, and thus commands, that is, brings our essential nature into the keeping of thought, needs thinking because what calls us wants itself to be thought about according to its nature. What calls on us to think demands for itself that it be tended, cared for, husbanded in its own essential nature by thought. What calls on us to think, gives us food for thought. What calls us to think is that which gives us food for thought, which in turn is the most thought provoking thing. The aspect of giving makes Heidegger to relate it with the It gives (es gibt) which in turn clarifies the reality of "call."

Heidegger's attempt has been to elaborate the giving aspect whereas in metaphysical tradition the element of gift has been emphasized. Being has been considered as a gift but not from the perspective of giving. Heidegger wants to emphasize the giving aspect by the expression It gives (es gibt).

In the beginning of Western thinking, Being is thought, but not the It gives as such. The latter withdraws in favour of the gift which it gives (es gibt). From then on, that gift is thought and conceptualized exclusively as Being with regard to beings (Sein des).
According to commentators,\textsuperscript{102} the fundamental limitation of metaphysical thinking is evident here. They considered Being as the gift, to the neglect of considering the giving of the gift, or the letting of the presencing which remains withdrawn. So in What is Called Thinking?, that which calls on us to think is the withdrawn aspect of Being.

In essential thinking there is a belonging together of Being and man. If thinking is a call from the side of Being, it becomes complete in a receptive listening from the side of man. This response becomes grateful thinking. Thus Heidegger is able to maintain that genuine thinking is thanking. Here again Heidegger employs his favourite etymological analysis. The root-term that links words such as thinking (Denken), thought (Gedanke), memory (Gedächtnis) and thanks (Danke) is the middle high German word which carries the meaning of grateful devotional recollective thought.\textsuperscript{103} It is also related to the old English noun "thanc." Hence he would maintain that thinking is thanking. Man is a thinking essence as well as a thanking essence.

Thinking as thanking takes place in the affirmation of Being .... Man's privileged relationship to Being is more tangibly
exercised in his thanking thinking that shepherds, houses and listens to Being.¹⁰⁴

3.5.5 Releasement as Authentic Thinking

In the previous section we have attempted to see the meaning of the term releasement and its connection to the German mystical tradition. Now we shall identify the essential aspects of releasement as enunciated in Discourse on Thinking. The central concern of the "Conversations" in Discourse on Thinking is to emphasize the idea that releasement is the essence of thinking. At the same time it is noted that by the standards of ordinary representative thought releasement is essentially thoughtlessness. We can notice here a negative procedure.

Heidegger clarifies his notions in opposition to some other notions. Thus releasement as the essence of thinking is distinguished from three kinds of thinking. The most ordinary kind of thinking is subject-object type of thinking. The subject-object mode of thinking presupposes a transcendental thinking which sets the horizon for it. This can be understood as the context or the universe of discourse within which a term gets its meaning. In the language of psychology it will be called a field or ground or gestalt in which a figure
becomes meaningful. Heidegger goes beyond the transcendental kind of thinking to a third type of thinking whereby he is able to think the region or the horizon in neither causal nor transcendental terms but in terms of "letting-be."\textsuperscript{105}

In *Discourse on Thinking* Heidegger uses two specific terms such as horizon and region. Horizon is the visual field in which objects appear. As far as Heidegger is concerned such a conception of horizon acts in the domain of representative thinking. He wants to think that which lets the horizon be what it is.\textsuperscript{106} Heidegger would like to describe the horizon as something that is open. However, an openness that lets the horizon be, i.e. primordial openness is called the region by him. He would use here the old German word *Gegnet*\textsuperscript{107} which can be translated as 'that which regions.' It is not just a region, nor can it be seen as the abstracted content of all regions. It is the region or the region of all regions.

...That-which-regions is an abiding expanse which, gathering all, opens itself, so that in it openness is halted and held, letting everything merge in its own resting.\textsuperscript{108}

This region is an openness that gathers everything into openness characterized by expanse and abiding.

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The two terms, expanse and abiding, enable Heidegger to bring out the meaning of Gegnet in spatio-temporal expression.¹⁰² That which regions lets everything appear in its abiding expanse. "...so that things which appear in that-which regions no longer have the character of objects."¹¹⁰ They no longer stand against our representing. That which regions is the source for men and things, and it is from where everything blooms out. "That which regions surrounds us and reveals itself to us as the horizon."¹¹¹ In other words, horizon is the manifested aspect of the Gegnet turned towards us.

We need to specify two further aspects of the Gegnet. The Gegnet is Vergegnis (regioning) when the manifestation is with regard to man and it is Bedingnis (bethinging) in relation to things. By the use of this terminology, Heidegger wants to emphasize that man is enabled to let himself be 'to that which regions' and things are let be as things. He makes it very clear that the relation between 'that-which-regions' and releasement is neither a causal nor transcendental-horizontal relation.¹¹² Thus these unfamiliar expressions are used precisely to go beyond the usual metaphysical categories.
Releasement from the perspective of Being or 'that which regions' is a letting-be of man and things. What is releasement from the perspective of man? Here Heidegger would reflect in a positive and a negative manner. In negative terms what does it mean to say that man releases himself to 'that which regions.' Here he would point out that releasement is 'non-willing.' It means that one renounces willing willingly.\textsuperscript{113} In other words, letting ourselves into releasement is not an activity of ours and it remains totally outside the domain of will. "So far as we can wean ourselves from willing, we contribute to the awakening of releasement."\textsuperscript{114} It appears to be an attitude of total passivity, but Heidegger considers releasement as a higher form of activity. It is "beyond the distinction between activity and passivity, because releasement does not belong to the domain of will."\textsuperscript{115}

In positive terms releasement is a waiting where we leave open what we are waiting for. Such a waiting\textit{(warten)} has no object. In that sense it is distinguished from awaiting \textit{(erwarten)}, the grammatical form of which demands an object. Heidegger would maintain that we release ourselves into the openness. "Openness itself would be that for which we could do
nothing but wait." He would say that this form of releasement is a releasement towards things and an openness to mystery. In fact this would be the approach that he would take in a world dominated by technology where releasement to things would be the right disposition.

Quite often we are caught up in situations where we would have to say 'yes' to the inevitable use of technical devices and at the same time 'no' to technology by denying it the right to dominate us. This ambivalent behaviour is expressed in the phrase 'releasement to things'. At the same time we are in the realm of mystery. The mysteriousness is evident for there is a realm of hideness in the very manifestation of things. "That which shows itself and at the same time withdraws is the essential trait of what we call the mystery." Openness is the proper disposition that we should cultivate at the realm of mystery. "Releasement towards things and openness to the mystery belong together," and it is this disposition that enables us to dwell in a released manner. What does it mean to dwell in a released manner? It does not in any way imply a passive existence. Rather it implies, as we have indicated above, a waiting which manifests a disposition of letting beings-be. Heidegger would
maintain that if we are released towards things in this manner, our relationship to things become, "wonderfully simple and relaxed." Releasement brings about a disposition that enables us to view things differently and increases the mystery dimension in our lives.

3.6.1 The Ecological Import of Authentic Thinking

We arrived at the question of thinking as we followed Heidegger's path in his critique of technology. According to Heidegger the present-day technology is not a mere impartial phenomenon. Neither is it a practical application of the ever growing scientific knowledge. In the revealing-concealing framework of his thinking, Heidegger views technology as a from of revealing. The revealing that dominates in modern technology is a one-dimensional mode of viewing entities. This comes to be evident in perceiving everything as raw material. The essence of technology which he names as enframing is a claim which makes man to order everything in this manner. The rule of enframing has the utmost danger because it denies the possibility of entering into a more original revealing. But in the danger of enframing a saving power is hidden, in the sense that genuine thinking opens us to the realm where the presencing of technology takes place.
The significant achievement of Heidegger's critique of technology is that the thinking of Being enabled him to see the technological present as a consequence of the metaphysical past. The metaphysical past for Heidegger is a degeneration of the early Greek notion of physis, logos and aletheia.

Heidegger's critique of science and technology is ecologically significant in the sense that it makes us aware of the dominance of the subject-object model of thinking. He sees the triumph of subjectivism in the dominance of technology. In a technological frame everything is ordered and regulated. Efficient causality attains priority over other forms of causes. The orientation of production becomes the standard relation to entities. Man, as the one who orders and regulates everything, becomes the lord of the earth. The technological man fails to become a listener and fails to see himself as one who ek-sists.

Authentic thinking, on the other hand, is not an exercise in logic. It is a thinking that understands the essential belonging together of logos. Logos as the primal gathering principle is that which gathers entities into revealment. Man's role is to preserve the unconcealment and to cultivate a receptive attitude towards the appearing essent. We can recognize in
Heidegger’s reflections on authentic thinking a strong emphasis to de-center the subject. It is evident in his very approach that questions the domination of logic in thinking.

Gelassenheit as a positive mode of thinking opens up possibilities of ecological sensitiveness. His reflections on releasement is an attempt to go beyond the domination of the will. We find an entirely different picture of the human here. The human being we find is no longer the lord and master but one who receptively listens to and waits for the call of Being. The framework of interrelationship that Heidegger developed in the early part of Being and Time specially through his analysis of existence as Being-in-the-world realizes an added dimension here. It is the metaphysico-technological attitude, dominated by calculative and representational thinking of the subject-object mode that views reality in dualistic categories. Such a perspective forgets the condition necessary for the possibility of encountering things at all. Common sense supposes that the horizon opens up just because we open our eyes. While it is genuine thinking that knows that looking presupposes an horizon.
Releasement as 'letting-beings-be' is very significant from the perspective of ecology. It is not a let-go but a let-be that does not suggest carelessness but the highest form of care. Ordinary existence knows very well that it can let things be. When one says that something is let-be, it implies that a grip is loosened. Even the physical expressions suggest that a thing is loosened from the situation of possession. It is freed into its own being. In other words, it is viewed from no ultimate grounds, nor from its usefulness. Releasement thus enables one not only to let a thing be but also to let all things be. In this sense it is the highest form of detachment. This is particularly significant in a world dominated by an extreme form of consumerism. Things are forced to yield the maximum results and every form of desire is seen as a need to be satisfied. The perspective of letting-beings-be, in such a situation, is a call to swim against the current.

We have seen that Heidegger's path of thinking has much ecological significance. His analysis of technology has led us to the path of thinking. In concluding his question concerning technology, the question that he raised is this: "How must we think?" At this juncture we should raise this question. Is his path of
thinking possible in a scientifcotechnologically dominated world as ours?

This question gains importance precisely because the one-dimensional thinking is so dominant that any other type of thinking is not seen to be worth the trouble. Heidegger is of the opinion that in such a context authentic thinking can only be prepared and that it remains ultimately a task. Great care needs to be taken so that this type of thinking is not interpreted with and integrated into the existing frame of reference. Heidegger's effort is to point out the limit of the existing frame of reference. And thus he has been able to point a way rather than enunciating the actual contents of it.