

Heidegger: The Question Concerning Technology

In what follows we shall be questioning concerning technology. Questioning builds a way. We would be advised, therefore, above all to pay heed to the way, and not to fix our attention on isolated sentences and topics. The way is a way of thinking. All ways of thinking, more or less perceptibly, lead through language in a manner that is extraordinary. 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.[1] When we can respond to this essence, we shall be able to experience the technological within its own bounds.

Technology is not equivalent to the essence of technology. When we are seeking the essence of "tree," we have to become aware that that which pervades every tree, as tree, is not itself a tree that can be encountered among all the other trees.

Likewise, the essence of technology is by no means anything technological. Thus we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it,² to which today we particularly like to do homage, makes us utterly blind to the essence of technology.

According to ancient doctrine, the essence of a thing is considered to be what the thing is. We ask the question concerning technology when we ask what it is. Everyone knows the two statements that answer our question. One says: Technology is a means to an end. The other says: Technology is a human activity. The two definitions of technology belong together. For to posit ends and procure and utilize the means to them is a human activity. The manufacture and utilization of equipment, tools, and machines, the manufactured and used things themselves, and the needs and ends that they serve, all belong to what tech-

here with "to come to presence," a rendering wherein the meaning "endure" should be strongly heard. Occasionally it will be translated "to essence," and its gerund will be rendered with "essencing." The noun Wesen will regularly be translated "essence" until Heidegger's explanatory discussion is reached. Thereafter, in this and the succeeding essays, it will often be translated with "coming to presence." In relation to all these renderings, the reader should bear in mind a point that is of fundamental importance to Heidegger, namely, that the root of wesen, with its meaning "to dwell," provides one integral component in the meaning of the verb sein (to be).
.(Cf. An Introduction to Metaphysics, p. 59.)

2. "Conception" here translates the noun *Vorstellung*. Elsewhere in this volume, *Vorstellung* will usually be translated by "representation," and its related verb *vorstellen* by "to represent." Both "conception" and "representation" should suggest a placing or setting-up-before. Cf. the discussion of *Vorstellung* in AWP 131-132.

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nology is. The whole complex of these contrivances is technology. Technology itself is a contrivance, or, in Latin, an *instrumentum* .3

The current conception of technology, according to which it is a means and a human activity, can therefore be called the instrumental and anthropological definition of technology.

Who would ever deny that it is correct? It is in obvious conformity with what we are envisioning when we talk about technology. The instrumental definition of technology is indeed so uncannily correct that it even holds for modern technology, of which, in other respects, we maintain with some justification that it is, in contrast to the older handwork technology' something completely different and therefore new. Even the power plant with its turbines and generators is a man-made means to an end established by man. Even the jet aircraft and the hi-,h_ frequency apparatus are means to ends. A radar station is of course less simple than a weather vane. To be sure, the construction of a high-frequency apparatus requires the interlocking of various processes of technical-industrial production. And certainly a sawmill in a secluded valley of the Black Forest is a primitive means compared with the hydroelectric plant in the Rhine River.

But this much remains correct: modern technology too is a means to an end. That is why the instrumental conception of technology conditions every attempt to bring man into the right relation to technology. Everything depends on our manipulating technology in the proper manner as a means. We will, as we say, "get" technology "spiritually in hand." We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control.

But suppose now that technology were no mere means, how would it stand with the will to master it? Yet we said, did we

3. *Instrumentum* signifies that which functions to heap or build up or to arrange. Heidegger here equates it with the noun *Einrichtung*, translated "Contrivance," which can also mean arrangement, adjustment, furnishing, or equipment. In accordance with his dictum that the true must be sought by way of the correct, Heidegger here anticipates with his identification of technology as an *instrumentum* and an *Einrichtung* his later "true" characterization of technology in terms of setting-in-place, ordering, Enframing, and standing-re serve.

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not, that the instrumental definition of technology is correct? To be sure. The correct always fixes upon something pertinent in whatever is under consideration. However, in order to be correct, this fixing by no means needs to uncover the thing in question in its essence. Only at the point where such an uncovering happens does the true come to pass.' For that reason the merely correct is not yet the true. Only the true brings us into a free relationship with that which concerns us from out of its essence. Accordingly, the correct instrumental definition of technology still does not show us technology's essence. In order that we may arrive at this, or at least come close to it, we must seek the true by way of the correct. We must ask: What is the instrumental itself? Within what do such things as means and end belong? A means is that whereby something is effected and thus attained. Whatever has an effect as its consequence is called a cause. But not only that by means of which something else is effected is a cause. The end in keeping with which the kind of means to be used is determined is also considered a cause. Wherever ends are pursued and means are employed, wherever instrumentality reigns, there reigns causality.

For centuries philosophy has taught that there are four causes: (1) the *causa materialis*, the material, the matter out of which, for example, a silver chalice is made; (2) the *causa formalis*, the form, the shape into which the material enters; (3) the *causa finalis*, the end, for example, the sacrificial rite in relation to which the chalice required is determined as to its form and matter; (4) the *causa efficiens*, which brings about the effect that is the finished, actual chalice, in this instance, the silversmith. What technology is, when represented as a means, discloses itself when we trace instrumentality back to fourfold causality.

But suppose that causality, for its part, is veiled in darkness with respect to what it is? Certainly for centuries we have acted as though the doctrine of the four causes had fallen from heaven as a truth as clear as daylight. But it might be that the time has come to ask, Why are there just four causes? In relation to the aforementioned four, what does "cause" really mean? From

4. "Come to pass" translates *sich ereignet*. For a discussion of the fuller meaning of the verb *ereignen*, see T 38 n. 4, 45.

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whence does it come that the causal character of the four causes is so unifiedly determined that they belong together?

So long as we do not allow ourselves to go into these questions, causality, and with it instrumentality, and with the latter the accepted definition of

technology, remain obscure and groundless.

For a long time we have been accustomed to representing cause as that which brings something about. In this connection, to bring about means to obtain results, effects. The *causa efficiens*, but one among the four causes, sets the standard for all causality. This goes so far that we no longer even count the *causa finalis*,^t telic finality, as causality. *Causa*, *casus*, belongs to the verb *cadere*, "to fall," and means that which brings it about that something falls out as a result in such and such a way. The doctrine of the four causes goes back to Aristotle. But everything that later ages seek in Greek thought under the conception and rubric "causality," in the realm of Greek thought and for Greek thought per se has simply nothing at all to do with bringing about and effecting. What we call cause [*Ursache*] and the Romans call *causa* is called *aition* by the Greeks, that to which something else is indebted [*das, was ein anderes verschuldet*].¹ The four causes are the ways, all belonging at once to each other, of being responsible for something else. An example can clarify this.

Silver is that out of which the silver chalice is made. As this matter (*hyle*), it is co-responsible for the chalice. The chalice is indebted to, i.e., owes thanks to, the silver for that out of which it consists. But the sacrificial vessel is indebted not only to the silver. As a chalice, that which is indebted to the silver appears in the aspect of a chalice and not in that of a brooch or a ring. Thus the sacrificial vessel is at the same time indebted to the aspect (*eidos*) of chaliceness. Both the silver into which the aspect is admitted as chalice and the aspect in which the silver appears are in their respective ways co-responsible for the sacrificial vessel.

5. *Das, was ein anderes verschuldet* is a quite idomatic expression that here would mean to many German readers "that which is the cause of something else." The verb *verschulden* actually has a wide range of meanings—to be indebted, to owe, to be guilty, to be responsible for or to, to cause. Heidegger intends to awaken all these meanings and to have connotations of mutual interdependence sound throughout this passage.

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But there remains yet a third that is above all responsible for the sacrificial vessel. It is that which in advance confines the chalice within the realm of consecration and bestowal.⁶ Through this the chalice is circumscribed as sacrificial vessel. Circumscribing gives bounds to the thing. With the bounds the thing does not stop; rather from out of them it begins to be what, after production, it will be. That which gives bounds, that which completes, in this sense is called in Greek *telos*, which is all too often translated as "aim" or "purpose," and so misinterpreted. The *telos* is responsible for what as matter and for what as aspect are together co-responsible for the sacrificial vessel.

Finally there is a fourth participant in the responsibility for the finished sacrificial vessel's lying before us ready for use, i.e., the silversmith—but not at all because he, in working, brings about the finished sacrificial chalice as if it were the effect of a making; the silversmith is not a causa efficiens.

The Aristotelian doctrine neither knows the cause that is named by this term nor uses a Greek word that would correspond to it.

The silversmith considers carefully and gathers together the three aforementioned ways of being responsible and indebted. To consider carefully [überlegen] is in Greek legein, logos. Legein is rooted in apophainesthai, to bring forward into appearance. The silversmith is co-responsible as that from whence the sacrificial vessel's bringing forth and resting-in-self take and retain their first departure. The three previously mentioned ways of being responsible owe thanks to the pondering of the silversmith for the "that" and the "how" of their coming into appearance and into play for the production of the sacrificial vessel.

Thus four ways of being responsible hold sway in the sacrificial vessel that lies ready before us. They differ from one another, yet they belong together. What unites them from the beginning? In what does this playing in unison of the four ways of being

6. Literally, "confines into"—the German preposition in with the accusative. Heidegger often uses this construction in ways that are unusual in German, as they would be in English. It will ordinarily be translated here by "within" so as to distinguish it from "in" used to translate in with the dative.

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responsible play? What is the source of the unity of the four causes? What, after all, does this owing and being responsible mean, thought as the Greeks thought it?

Today we are too easily inclined either to understand being responsible and being indebted moralistically as a lapse, or else to construe them in terms of effecting. In either case we bar to ourselves the way to the primal meaning of that which is later called causality. So long as this way is not opened up to us we shall also fail to see what instrumentality, which is based on causality, actually is.

In order to guard against such misinterpretations of being responsible and being indebted, let us clarify the four ways of being responsible in terms of that for which they are responsible. According to our example, they are responsible for the silver chalice's lying ready before us as a sacrificial

vessel. Lying before and lying ready (hypokeisthai) characterize the presencing of something that presences. The four ways of being responsible bring something into appearance. They let it come forth into presencing [An-wesen]. 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. It is in the sense of such a starting something on its way into arrival that being responsible is an occasioning or an inducing to go forward [Ver-an-lassen]. On the

7. By writing An-wesen, Heidegger stresses the composition of the verb anwesen, translated as "to presence." The verb consists of wesen (literally, to continue or endure) with the prepositional prefix an- (at, to, toward). It is man who must receive presencing, man to whom it comes as enduring. Cf. *On Time and Being*, trans. Joan Stambaugh (New York: Harper & Row, 1972), p. 12.

8. Ver-an-lassen is Heidegger's writing of the verb veranlassen in noun form, now hyphenated to bring out its meaning. Veranlassen ordinarily means to occasion, to cause, to bring about, 'to call forth. Its use here relates back to the use of antassen (to leave [something] on, to let loose, to set going), here translated "to start something on its way." Anlassen has just been similarly written as an-lassen so as to emphasize its composition from lassen (to let or leave) and an (to or toward). One of the functions of the German prefix ver- is to intensify the force of a verb. André Pr6au quotes Heidegger as saying: "Ver-an-lassen is more active than an-lassen. The ver-, as it were, pushes the latter toward a doing [vers un faire]." Cf. Martin Heidegger, *Essais et Conf6rences* (Paris: Gallimard, 1958), p. 16 n.

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basis of a look at what the Greeks experienced in being responsible, in aitia, we now give this verb "to occasion" a more inclusive meaning, so that it now is the name for the essence of causality thought as the Greeks thought it. The common and narrower meaning of "occasion" in contrast is nothing more than striking against and releasing, and means a kind of secondary cause within the whole of causality.

But in what, then, does the playing in unison of the four ways of occasioning play? They let what is not yet present arrive into presencing. Accordingly, they are unifiedly ruled over by a bringing that brings what presences into appearance. Plato tells us what this bringing is in a sentence from the Symposium (205b): he gar toi ek tou me onton eis to on ionti hot5ioun aitia pasa esti poiesis. "Every occasion for whatever passes over and goes forward into presencing from that which is not presencing is poiesis, is bringing-forth [Her-vor-bringen]."

It is of utmost importance that we think bringing-forth in its full scope

and at the same time in the sense in which the Greeks thought it. Not only handcraft manufacture, not only artistic and poetical bringing into appearance and concrete imagery, is a bringing-forth, poiesis. Physis also, the arising of something from out of itself, is a bringing-forth, poiPsis. Physis is indeed pot . est . s in the highest sense. For what presences by means of physi . s has the bursting open belonging to bringing-forth, e.g., the bursting of a blossom into bloom, in itself (en heaut5i). In contrast, what is brought forth by the artisan or the artist, e.g.,

9. The full gamut of meaning for the verb hervorbringen, here functioning as a noun, includes to bring forth or produce, to generate or beget, to utter, to elicit. Heidegger intends that all of these nuances be heard. He hyphenates the word in order to emphasize its adverbial prefixes, her(here or hither) and vor- (forward or forth). Heidegger elsewhere makes specific the meaning resident in Her-vor-bringen for him by utilizing those prefixes independently. Thus he says (translating literally), "Bringing-forthhither brings hither out of concealment, forth into unconcealment" (cf. below, P. 11); and-after identifying working (wirken) and her-vor-bringenhe says that working must be understood as "bringing hither-into u nconcealment, forth-into presencing" (SR 161). Because of the awkwardness of the English phrase "to bring forth hither," it has not been possible to include in the translation of her-vor-bringen the nuance of meaning that her- provides.

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the silver chalice, has the bursting open belonging to bringingforth not in itself, but in another (en all6i), in the craftsman or artist.

The modes of occasioning, the four causes, are at play, then, within bringing-forth. Through bringing-forth, the growing things of nature as well as whatever is completed through the crafts and the arts come at any given time to their appearance.

But how does bringing-forth happen, be it in nature or in handwork and art? What is the bringing-forth in which the fourfold way of occasioning plays? Occasioning has to do with the presencing [Anwesen] of that which at any given time comes to appearance in bringing-forth. Bringing-forth brings hither out of concealment forth into unconcealment. Bringing-forth comes to pass only insofar as something concealed comes into unconcealment. This coming rests and moves freely within what we call revealal [das Entbergen]. 'o The Greeks have the word

10. The verb entbergen (to reveal) and the allied noun Entbergung (revealing) are unique to Heidegger. Because of the exigencies of translation, entbergen must usually be translated with "revealing," and the presence of Entbergung, which is rather infrequently used, has therefore regrettably been obscured for want of an appropriate English noun as alternative that would be sufficiently active in meaning. Entbergen and

Entbergung are formed from the verb bergen and the verbal prefix ent- Bergen means to rescue, to recover, to secure, to harbor, to conceal. Ent- is used in German verbs to connote in one way or another a change from an existing situation. It can mean "forth" or "out" or can connote a change that is the negating of a former condition. Entbergen connotes an opening out from protective concealing, a harboring forth. For a presentation of Heidegger's central tenet that it is only as protected and preserved-and that means as enclosed and secure-that anything is set free to endure, to continue as that which it is, i.e., to be, see "Building Dwelling Thinking" in Poetry, Language, Thought, trans. Albert Hofstadter (New York: Harper & Row, 1971), p. 149, and cf. p. 25 below.

Entbergen and Entbergung join a family of words all formed from bergen -verbergen (to conceal), Verborgenheit (concealment), das Verborgene (the concealed), Unverborgenheit (unconcealment), das Unverborgene (the unconcealed)-of which Heidegger makes frequent use. The lack of viable English words sufficiently numerous to permit a similar use of but one fundamental stem has made it necessary to obscure, through the use of "reveal," the close relationship among all the words just mentioned. None of the English words used-"reveal conceal," "unconceal'~-evinces with any adequacy the meaning resident in bergen itself; yet the reader should be constantly aware that the full range of connotation present in bergen sounds for Heidegger within all these, its derivatives.

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aI442,eia for revealing. The Romans translate this with ve 't

We say "truth" and usually understand it as the correctness of an idea.

But where have we strayed to? We are questioning concerning technology, and we have arrived now at alotheia, at revealing. What has the essence of technology to do with revealing? The answer: everything. For every bringing-forth is grounded in revealing. Bringing-forth, indeed, gathers within itself the four modes of occasioning-causality-and rules them throughout. Within its domain belong end and means, belongs instrumentality." Instrumentality is considered to be the fundamental characteristic of technology. If we inquire, step by step, into what technology, represented as means, actually is, then we shall arrive at revealing. The possibility of all productive manufacturing lies in revealing.

Technology is therefore no mere means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth. 12

This prospect strikes us as strange. Indeed, it should do so, should do so as persistently as possible and with so much urgency that we will finally

take seriously the simple question of what the name "technology" means. The word stems from the Greek. Technikon means that which belongs to technē. We must observe

ii. Here and elsewhere "belongs within" translates the German *gehört* in with the accusative (literally, belongs into), an unusual usage that Heidegger often employs. The regular German construction is *gehört zu* (belongs to). With the use of "belongs into," Heidegger intends to suggest a relationship involving origin.

12. Heidegger here hyphenates the word *Wahrheit* (truth) so as to expose its stem, *wahr*. He points out elsewhere that words with this stem have a common derivation and underlying meaning (SR 165). Such words often show the connotations of attentive watchfulness and guarding that he there finds in their Greek cognates, *horao*, *ora*, e.g., *wahren* (to watch over and keep safe) and *bewahren* (to preserve). Hyphenating *Wahrheit* draws it overtly into this circle of meaning. It points to the fact that in truth, which is unconcealment (*Unverborgenheit*), a safekeeping carries itself out. *Wahrheit* thus offers here a very close parallel to its companion noun *Entbergung* (revealing; literally, harboring forth), built on *bergen* (to rescue, to harbor, to conceal). See n. 10, above. For a further discussion of words built around *wahr*, see T 42, n. 9.

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two things with respect to the meaning of this word. One is that *technē* is the name not only for the activities and skills of the craftsman, but also for the arts of the mind and the fine arts. *Techne* belongs to bringing-forth, to *poiēsis*; it is something poetic.

The other point that we should observe with regard to *technē* is even more important. From earliest times until Plato the word *techne* is linked with the word *epistēmō*. Both words are names for knowing in the widest sense. They mean to be entirely at home in something, to understand and be expert in it. Such knowing provides an opening up. As an opening up it is a revealing. Aristotle, in a discussion of special importance (*Nicomachean Ethics*, Bk. VI, chaps. 3 and 4), distinguishes between *epistēmō* and *technē* and indeed with respect to what and how they reveal. *Techne* is a mode of *alitheuein*. It reveals whatever does not bring itself forth and does not yet lie here before us, whatever can look and turn out now one way and now another. Whoever builds a house or a ship or forges a sacrificial chalice reveals what is to be brought forth, according to the perspectives of the four modes of occasioning. This revealing gathers together in advance the aspect and the matter of ship or house, with a view to the finished thing envisioned as completed, and from this gathering determines the manner of its construction. Thus what is decisive in *technē* does not lie at all in making 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.

Thus the clue to what the word technE means and to how the Greeks defined it leads us into the same context that opened itself to us when we pursued the question of what instrumentality as such in truth might be.

Technology is a mode of revealing. Technology comes to presence [West] in the realm where revealing and unconcealment take place, where aletheia, truth, happens.

in opposition to this definition of the essential domain of technology, one can object that it indeed holds for Greek thought and that at best it might apply to the techniques of the handcraftsman, but that it simply does not fit modern machine-powered technology. And it is precisely the latter and

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it alone that is the disturbing thing, that moves us to ask the question concerning technology per se. It is said that modern technology is something incomparably different from all earlier technologies because it is based on modern physics as an exact science. Meanwhile we have come to understand more clearly that the reverse holds true as well: Modern physics, as experimental, is dependent upon technical apparatus and upon progress in the building of apparatus. The establishing of this mutual relationship between technology and physics is correct. But it remains a merely historiographical establishing of facts and says nothing about that in which this mutual relationship is grounded. The decisive question still remains: Of what essence is modern technology that it happens to think of putting exact science to use?

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 poijsis. The revealing that rules in modern technology is a challenging [Herausfordern] '13 which puts to nature the unreasonable demand that it supply energy that can be extracted and stored as such. But does this not hold true for the old windmill as well? No. Its sails do indeed turn in the wind; they are left entirely to the wind's blowing. But the windmill does not unlock energy from the air currents in order to store it.

In contrast, a tract of land is challenged into the putting out of coal and ore. The earth now reveals itself as a coal mining district, the soil as a mineral deposit. The field that the peasant .formerly cultivated and set in order [bestellt] appears differently than it did when to set in order still meant to take care of and

13. Herausfordern means to challenge, to call forth or summon to action, to demand positively, to provoke. It is composed of the verb fordern (to demand, to summon, to challenge) and the adverbial prefixes her- (hither) and aus- (out). The verb might be rendered very literally as "to demand out hither." The structural similarity between herausfordern and her-vorbringen (to bring forth hither) is readily apparent. It serves of itself to point up the relation subsisting between the two modes of revealing of which the verbs speak-modes that, in the very distinctive ways peculiar to them, occasion a coming forth into unconcealment and presencing. See below, 29-30.

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to maintain. The work of the peasant does not challenge the soil of the field. In the sowing of the grain it places the seed in the keeping of the forces of growth and watches over its increase. But meanwhile even the cultivation of the field has come under the grip of another kind of setting-in-order, which sets upon [stellt] nature. 14 It sets upon it in the sense of challenging it. Agriculture is now the mechanized food industry. Air is now set upon to yield nitrogen, the earth to yield ore, ore to yield uranium, for example; uranium is set upon to yield atomic energy, which can be released either for destruction or for peaceful use.

This setting-upon that challenges forth the energies of nature is an expediting [Fbrdern], and in two ways. It expedites in that it unlocks and exposes. 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. The coal that has been hauled out in some mining district has not been supplied in order that it may simply be present somewhere or other. It is stockpiled; that is, it is on call, ready to deliver the sun's warmth that is stored in it. The sun's warmth is challenged forth for heat, which in turn is ordered to deliver steam whose pressure turns the wheels that keep a factory running.

14. The verb stellen (to place or set) has a wide variety of uses. It can mean to put in place, to order, to arrange, to furnish or supply, and, in a military context, to challenge or engage. Here Heidegger sees the connotations of herausfordern (to challenge, to call forth, to demand out hither) as fundamentally determinative of the meaning of stellen, and this remains true throughout his ensuing discussion. The translation of stellen with "to set upon" is intended to carry this meaning. The connotations of setting in place and of supplying that lie within the word stellen remain strongly present in Heidegger's repeated use of the verb hereafter, however, since the "setting-upon" of which it speaks is inherently a setting in place so as to supply. Where these latter meanings come decisively to the fore, stellen has been translated with "to set" or "to set up," or, rarely, with "to supply."

Stellen embraces the meanings of a whole family of verbs: bestellen (to order, command; to set in order), vorstellen (to represent), sicherstellen (to secure), nachstellen (to entrap), verstellen (to block or disguise), herstellen (to produce, to set here), darstellen (to present or exhibit), and so on. In these verbs the various nuances within stellen are reinforced and made specific. All these meanings are gathered together in Heidegger's unique use of the word that is pivotal for him, Ge-stell (Enframing). Cf. pp. 19 ff. See also the opening paragraph of "The Turning," pp. 36-37.

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The hydroelectric plant is set into the current of the Rhine. It sets the Rhine to supplying its hydraulic pressure, which then sets the turbines turning. This turning sets those machines in motion whose thrust sets going the electric current for which the long-distance power station and its network of cables are set up to dispatch electricity." In the context of the interlocking processes pertaining to the orderly disposition of electrical energy, even the Rhine itself appears as something at our command. The hydroelectric plant is not built into the Rhine River as was the old wooden bridge that joined bank with bank for hundreds of years. Rather the river is dammed up into the power plant. What the river is now, namely, a water power supplier, derives from out of the essence of the power station. In order that we may even remotely consider the monstrousness that reigns here, let us ponder for a moment the contrast that speaks out of the two titles, "The Rhine" as dammed up into the power works, and "The Rhine" as uttered out of the art work, in Hblderlin's hymn by that name. But, it will be replied, the Rhine is still a river in the landscape, is it not? Perhaps. But how? In no other way than as an object on call for inspection by a tour group ordered there by the vacation industry.

The revealing that rules throughout modern technology has the character of a setting-upon, in the sense of a challengingforth. 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. But the revealing never simply comes to an end. Neither does it run off into the indeterminate. The revealing reveals to itself its own manifoldly interlocking paths, through regulating their course. This regulating itself is, for its part, everywhere secured. Regulating and securing even become the chief characteristics of the challenging revealing.

15. In these two sentences, in order to show something of the manner in which Heidegger gathers together a family of meanings, a series of stellen verbs-stellen (three times), herstellen, bestellen-have been translated with verbal expressions formed around "set." For the usual meanings of these verbs, see n. 14.

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What kind of unconcealment is it, then, that is peculiar to that which comes to stand forth through this setting-upon that challenges? 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. Whatever is ordered about in this way has its own standing. We call it the standing-reserve [Bestandj." The word expresses here something more, and something more essential, than mere "stock." The name "standingreserve" assumes the rank of an inclusive rubric. It designates nothing less than the way in which everything presences that is wrought upon by the challenging revealing. Whatever stands by in the sense of standing-reserve no longer stands over against us as object.

Yet an airliner that stands on the runway is surely an object. Certainly. We can represent the machine so. But then it conceals itself as to what and how it is. Revealed, it stands on the taxi strip only as standing-reserve, inasmuch as it is ordered to ensure the possibility of transportation. For this it must be in its whole structure and in every one of its constituent parts, on call for duty, i.e., ready for takeoff. (Here it would be appropriate to discuss Hegel's definition of the machine as an autonomous tool. When applied to the tools of the craftsman, his characterization is correct. Characterized in this way, however, the machine is not thought at all from out of the essence of technology within which it belongs. Seen in terms of the standing-reserve, the machine is completely unautonomous, for it has its standing only from the ordering of the orderable.)

The fact that now, wherever we try to point to modern technology as the challenging revealing, the words "setting-upon," "Ordering," "standing-reserve," obtrude and accumulate in a dry, monotonous, and therefore oppressive way, has its basis in what is now coming to utterance.

16. Bestand ordinarily denotes a store or supply as "standing by." It carries the connotation of the verb bestehen with its dual meaning of to last and to undergo. Heidegger uses the word to characterize the manner in which everything commanded into place and ordered according to the challenging demand ruling in modern technology presences as revealed. He wishes to stress here not the permanency, but the orderability and substitutability of objects. Bestand contrasts with Gegenstand (object; that which stands over against). Objects indeed lose their character as objects when they are caught up in the "standing-reserve." Cf. Introduction, p. xxix.

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1. "Essence" is the traditional translation of the German noun Wesen. One of Heidegger's principal aims in this essay is to seek the true meaning of essence through or by way of the "correct" meaning. He will later show that Wesen does not simply mean what something is, but that it

means, further, the way in which something pursues its course, the way in which it remains through time as what it is. Heidegger writes elsewhere that the noun Wesen does not mean quidditas originally, but rather "enduring as presence" (das Wahren als Gegenwart). (See *An Introduction to Metaphysics*, trans. Ralph Manheim [New York: Doubleday, 1961], p. 59.) Wesen as a noun derives from the verb wesen, which is seldom used as such in modern German. The verb survives primarily in inflected forms of the verb sein (to be) and in such words as the adjective anwesend (present). The old verbal forms from which wesen stems meant to tarry or dwell. Heidegger repeatedly identifies wesen as "the same as wahren [to last or endure]." (See p. 30 below and SR 161.) As a verb, wesen will usually be translated