Toward A Technology That Allows The Beautiful To Occur

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The ecological problem is an aesthetic crisis. The world is becoming increasingly less beautiful because of technology. Leavening Heidegger with a measure of largely forgotten medieval aesthetics, I maintain that we have forgotten the ontological relevance of the beautiful, and the aesthetic relevance of the ontological. We have allowed our technology to develop without consideration for aesthetic effect. I offer three criteria for a technology that allows the beautiful to occur: fittingness, transparency, and self-containment.¹

1. Heidegger’s Critique Of Technology

Let me begin with Heidegger’s thesis: by coercing beings into perpetual presence, technology “sets” [gestellt] up the world as a “a standing reserve” [Bestand] of resources always available for human use.² Every technological device is a cause that is efficacious to the degree that it brings some natural phenomena into limited and strictly controlled actuality. Technology coerces beings, which are governed by a hidden law of emergence and withdrawal, into perpetual presence. Physis, nature, is the pre-Socratic figure for being, the emergence and withdrawal of things from a hidden source. “For [the Greeks] being [physis] is what flourishes on its own, in no way compelled, what rises and comes forward, and what goes back into itself and passes away. It is the rule that rises and resides in itself.”³ To coerce beings into perpetual presence is to abstract them from physis, to appropriate their coming to be for our own purposes.

At the end of “The Question Concerning Technology,” Heidegger leaves us with the cryptic suggestion that a “saving power” lies concealed in this “dangerous” moment in the destiny of the West. We are at a stage in the history of being where the human being

¹ Readers of Scholastic aesthetics will recognize here modification of Aquinas’s three attributes of beauty: consonantia, claritas, and integritas. Aquinas drew on Aristotle’s Metaphysics 13, 1078 b. Aristotle speaks of order, symmetry, and definiteness.
no longer fully encounters itself because everywhere it finds only itself. “Man, precisely as the one so threatened, exalts himself to the posture of lord of the earth. In this way the illusion comes to prevail that everything man encounters exists only insofar as it is his construct. This illusion gives rise in turn to one final delusion: it seems as though man everywhere and always encounters only himself. . . . In truth, however, precisely nowhere does man today only encounter himself, i.e., his essence.” The machine we have built for ourselves conceals from us our own essence, for it conceals the gratuity of being. The saving power hinges on the apotheosis of the hubris of contemporary technology in this moment of our history, for the questionability of the divorce of the technological and the aesthetic, the abstraction upon which our technology is founded, only now comes to the fore. It is significant that we are at last beginning to recognize that our technological planet is less beautiful than it once was.

Heidegger understands *techne* as a mode of *poiesis*, interpreting *poiesis* as passing from the non-present into presence. He translates Plato, *Symposium*, 205b as: “Every occasion for whatever passes beyond the non-present and goes forward into presencing is *poiesis*, bringing forth [Her-vor-bringen].” All emergence into presence is *poiesis*. *Techne*, the manufacturing of artifacts, is as much a kind of *poiesis* as *physis*. Coming to be is a poetic event. Heidegger speaks of beauty as the appearance of coming to be. “The word “beautiful” [schön] means appearing in the radiance of such coming to the fore [Erscheinen im Schein solchen Vorscheins].” *Techne*, like artistic creation, brings something into presence. As such it has an essential relationship to *physis*. To create art is to parallel *physis* and effect an increase in being. Technology is also concerned with bringing into being, but in a different way.

Ancient technology hearkened to the way beings emerge and withdraw of their own accord; it paid heed to *physis*. The farmer can grow crops because he knows the ways of things that grow. He is not the sufficient cause of their growth; rather he holds in unconcealment “their own rule of self-emergence.” Ancient *techne* is “the disclosing of beings as such, in the manner of a knowing guidance of bringing-forth.” It “is no kind of an attack: it lets what is already coming to presence arrive.” The farmer’s work fits into the natural rhythm governing the emergence and withdrawal of beings; it is not a coercion of *physis* but a dialogical response to it. As such it has an aesthetic dimension. For it is the nature of the artwork to illuminate and bring into view that hidden ground which makes all coming to be possible: the earth. “In setting up a world, the [art] work sets forth the earth. This setting forth must be thought here in the strict sense of the word. The work moves the earth itself into the open region of a world and keeps it there. The work lets the earth be earth.” The earth is the dark self-withholding ground of *physis*,

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4 Heidegger, “Technology,” 308
5 Ibid., 293.
6 Heidegger, *Nietzsche* 1, 110.
8 Heidegger, *Nietzsche* 1, 82
“the spontaneous forthcoming of that which is continually self-secluding and to that extent sheltering and concealing.”¹⁰ It is that which never fully shows itself, but makes possible all other self-showing, “that which comes forth and shelters.”¹¹ It resists ever[y] effort to coerce it into presence, but shows itself as the self-withholding ground only insofar as it is left alone. The proper kind of techne participates in the emergence and withdrawal of beings, serves the unconcealment of beings, and also in its own way sets forth the earth. This natural self-disclosure, “light . . . shining to and into the work”, Heidegger calls “the beautiful.”¹²

Modern technology, by contrast, is a “challenging forth” of beings, a coercion that overrides physis, a declaration of war on the self-withholding earth.¹³ We expedite the emergence of things, unlocking and exposing their power, in order to maximize yield, minimize expense, and ultimately ameliorate human living. Modern technology systematically secures nature as a constantly available resource by “enframing” being, limiting it to that which is calculable and thus controllable.¹⁴ By challenging beings into presence, modern technology circumvents physis. Our contemporary urban landscape shows how technology has purchased efficiency at the price of diversity. Aquinas frequently argues that a certain curious feature of the real is justified because it is fitting that as many varieties of beings exist as possible. Modern technology moves in the opposite direction: standardization, repetition of pattern, homogenization, chains of gray cities of rectangular blocks, ringed by industrial ‘parks,’ and connected to one another by paved circuits of rushing traffic. This is an architecture modeled on the machine: modular, systematic, endlessly repeatable.

2. Modernism And The Aesthetics Of The Machine

Early modernist architects openly celebrated the pure functionalism of machines. Modernism was a call to architectural authenticity. The modernists repudiated neo-Classical, neo-Romanesque, and neo-Gothic architecture as a facade, modern structures decorated with features from another age. The machine excludes such aesthetic excess. With the fervor of revolutionaries, they demanded that modern buildings brazenly exhibit the new structures made possible by concrete, glass, and steel.¹⁵ The undisguised functionalism of steamships, airplanes, and automobiles exemplified what a modern structure ought to look like. In 1914, Italian futurist Marinetti raved, “We declare that the world’s splendor has been enriched by a new beauty, the beauty of speed. A racing motor car, its frame adorned with great pipes, like snakes with explosive breath ... a roaring

¹⁰ Ibid., 172.
¹¹ Ibid., 171
¹² Ibid., 178.
¹⁴ Ibid., 301.
motor car which looks as though it were running on shrapnel is more beautiful than the Victory of Samothrace.”

In 1923 Walter Gropius, director of Bauhaus, envisioned “an architecture adapted to our world of machines, radios and fast motor cars, an architecture whose function is clearly recognizable in relation to its form.” This revolution was not restricted to office buildings and airports, it embraced that most intimate of built forms: the house. Le Corbusier’s writes, “We must create the mass-production spirit, the spirit of constructing mass-production houses. If we eliminate from our hearts and minds all dead concepts in regard to the house, and look at the question from a critical and objective point of view, we shall arrive at the ‘house machine.’”

The revolution has succeeded. We are surrounded by machine-like architecture, suburbs of rows of identical houses, strip malls, inner cities of concrete canyons. At the moment I live in a two hundred year old country inn that has been converted into an apartment building. It is a gracious four-story brick building built on the banks of a creek, with a peaked roof, dormer windows and a broad set of stairs leading to the second floor. It must have been lovely in its day, a small manor nestled into the landscape, overlooking a creek and surrounding farms and hills. In the past century an industrial park has developed around the house. The little inn stands imprisoned by parking lots, warehouses and factories. Across the street is a milk processing plant: a massive windowless grey concrete box with a complex appendage of towering steal cylinders, pipes, and loading bays, interrupting from its rear. The sound of milk production fills the neighborhood with a background din of white noise. This building shows nothing but itself. It is not only devoid of aesthetic sense, it is unignorable.

Modernism was notoriously indifferent to place. Le Corbusier envisioned cities of high rise apartment buildings as ‘towers in a park,’ the vertical space made accessible for habitation liberating horizontal space for trees and grass. The task was not to built into what was already there, but to remove everything and start from a level plane. To design whole communities in one view that could be installed anywhere entailed erasing pre-existing patterns of dwelling, inscribed into a landscape by centuries of human living. Modern architecture is “the system” that “goes anywhere and everywhere, but genuinely fits nowhere.”

The failure of modernism has led many of us to question whether in fact machines make good living spaces. On the architect’s drafting table, Brasilia, the modernist capital of Brazil, doubtlessly looked impressive. In actuality it has proven nearly uninhabitable. The first city designed on modernist principles from a tabula rasa, a utopia designed free of the constraints of adapting to previously built structures, Brasilia is a colossal failure.

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The designers forgot to factor in the human element. The residents spontaneously rejected the abstract shapes as a suitable place to dwell and returned to more organic, familiar forms: the tin roof shacks and crowded lanes of nearby slums. “The designs are monumental and picturesque ... cold, hard shapes of the future. Brasilia’s problem is that these buildings are monuments, isolated from each other by a great deal of empty space, while the real life of the city is relegated to acres of shanty towns only a few kilometers away.”

Phenomenologist Erazim Kohak traces twentieth century existential malaise to the homelessness of the human being consigned to live in a machine: “The world of artifacts and constructs with which we have surrounded ourselves knows neither a law nor a rhythm: in its context even resting and rising come to seem arbitrary. We ourselves have constructed that world for our dwelling place, replacing rude nature with the artifacts of techne, yet increasingly we confess ourselves bewildered strangers within it, ‘alienated,’ ‘contingently thrown’ into its anonymous machinery, and tempted to abolish the conflict between our meaningful humanity and our mechanical life-world by convincing ourselves, with Descartes, that we, too, are but machines.

3. Retrieving An Ontological Aesthetics

In subjectivist aesthetics, the beautiful is held to be not a manifestation of being, but a product of reason. Beauty is conceived in the human mind and imposed upon nature. The cultivated imagination transforms the given. For an ontological aesthetics, the reverse is the case. The given transforms the imagination. Hans-Georg Gadamer comments that beautiful things act on us, not the other way around. Art is not an imitation of reality, nor is it the expression of the rare perceptions of the genius. Art is reality come to a new manifestation of itself. Being is not ‘pictured’ or ‘expressed’ in art; it is brought to presence. The work of art is a “true increase of being.” As Heidegger puts it, art is “a becoming and happening of truth.”

“Truth is the unconcealment of beings as beings. Truth is the truth of Being. Beauty does not occur apart from this truth. When truth sets itself into the work, it appears. Appearance – as this being of truth in the work and as work – is beauty. Thus the beautiful belongs to truth’s proprietary event. It does not exist merely relative to pleasure and purely as its object. The beautiful does lie in form, but only because the forma once took its light from Being as the beingness of beings.”

The Heideggerian ontological aesthetic echos a medieval thesis: the transcendental.

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23 Ibid., 156.
MCGRATH: TOWARD A TECHNOLOGY THAT ALLOWS THE BEAUTIFUL TO OCCUR

The notion of beauty as a transcendental originates with the thirteenth century commentaries on Pseudo-Dionysius, the fifth century Greek author of *De divinis nominibus*, a work which describes creation as an irradiation of beauty, an emanation of the Creator, who is Beauty itself. The anonymous author of *De divinis nominibus* writes: “But the Superessential Beautiful is called ‘Beauty’ because of that quality which It imparts to all things severally according to their nature, and because It is the Cause of the harmony and splendor in all things, flashing forth upon them all, like light, the beautifying communications of its originating ray; and because It summons all things to fare unto Itself (from whence It hath the name of ‘Fairness’), and because It draws all things together in a state of mutual interpenetration.”

The Scholastic commentators on Pseudo-Dionysius defined beauty as one of the four transcendental attributes of being. The other three are goodness, unity, and truth. Because the transcendentals are the presupposition of whatever can be a subject or a predicate of a subject, that is, because they are trans-categorial, they are convertible. Wherever there is being, there too is beauty, goodness, unity, and truth. The transcendentals are ontologically the same, but their sameness is not an identity without difference. They differ intentionally, according to their different ‘ratios,’ for each articulates a different mode of intentionality. A thing can be intended as an object of appetite, something desired, and its being will appear as good. This emphasis on appearance, on the way the thing shows itself, is not the ‘mere appearance’ of subjectivist aesthetics. The thing can only appear good or beautiful because it really is so. The same thing that appears as good to the appetite can be intended as something to be contemplatively enjoyed, something which pleases the cognitive faculty. In this respect it appears as beautiful. The beauty disclosed to the cognitive faculty that has eyes to see is not a projection of the subject; rather it is the radiance of the thing, the shining of its form. Aquinas writes, “Beauty and goodness in a thing are identical fundamentally; for they are based upon the same thing, namely, the form; and consequently goodness is praised as beauty. But they differ logically, for goodness properly relates to the appetite (goodness being what all things desire); and therefore it has the aspect of an end (the appetite being a kind of movement towards a thing). On the other hand, beauty relates to the cognitive faculty; for beautiful things are those which please when seen. Hence beauty consists in due proportion; for the senses delight in things duly proportioned, as in what is after their own kind – because even sense is a sort of reason, just as is every cognitive faculty. Now since knowledge is by assimilation, and similarity relates to form, beauty properly belongs to the nature of a formal cause.”

Beauty is a formal cause, not a final cause – that is, where the thing as good draws us towards it as that for the sake of which I do whatever it is I do, the term of a desire, the beautiful does not drive us to act, to do or to make, it does not excite the appetites, but pleases us by its form. It is not the term of a desire but the shining of the form on the

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28 Aquinas, *Summa theologiae*, 1a, q. 5, a. 4, ad. 1.
desire-free intellect. The beautiful thing quiets the appetites and becalms desire. “The
beautiful is that which calms the desire by being seen or known.”

My appetite finds its
rest in the beautiful thing. Conversely the beautiful only shines on me when I make no
claim on it.

As a formal distinction within being, an intentional structure, beauty is something
‘in the soul’ -- the pleasure caused by the radiance of form -- and yet, for all that, it
remains ontological. It is the harmony of parts to whole and whole to parts within a
being, ‘the sounding together’ of parts ordered to a common end (consonantia); the
shining of intelligible structure in the thing (claritas); and the unity of the thing with
itself (integritas). The beautiful is neither subjective nor objective. It is appearance of
being – the illumination of being in the structure showing itself in the artwork, the
landscape, the built form. But the appearance is impossible without us. We are the theatre
within which the showing occurs. The thing is beautiful, but the appearance of the
beautiful is reserved for us alone. Beauty is a relationship of thing with intellect, and
cannot be conceived apart from this relationship.

Recognizing the tension between Heidegger’s neo-Pagan aim to replace Aquinas’s
actus purus with the pre-Socratic physis as the original meaning of being, we can
nonetheless draw the following connections between Heidegger’s phenomenology of
beauty and Aquinas’s. First, beauty is neither subjective (in the soul alone) nor objective
(independent of the soul). Beauty is precisely the way the soul [Dasein] is privileged to
experience being. Second, the coming to be of things is beautiful, for if for Aquinas all
that exists is beautiful, for Heidegger the unconcealment of beings is beautiful. Third, the
coercion of things into unnatural perpetual presence risks annulling the appearance of the
beautiful because it erases the horizon of absence (for Aquinas, potency) against which
the natural coming to be of anything is profiled. We are no longer witnesses to the
happening of being; we are the agents who forbid beings to be the way they are. There is
little aesthetic pleasure to be had in the coming to be of the technically manipulated form
for there is no coming to be here, but only a coercion to be.

4. Towards A New Way Of Being Technical

Could we not argue that modern technology has its own beauty? It is, after all,
something that is in a certain way. This is a difficult question. Yes, the efficiency of
technology is in a way beautiful, but its beauty is mitigated to the degree that it detracts
from physis. It purchases its unconcealment at the expense of the whole. By expediting
the processes of emergence into being, it diminishes the whole. The ecological question,
“Is our technology appropriate?” conceals a deeper question, “Does our technology let
nature show itself?” Only a being that lets be is sustainable. A technology that lets be
preserves and shelters rather than processes and consumes. To be technical in a beautiful

29 Ibid., 1a., q. 27, a. 1, ad. 3.
way means allowing aesthetic criteria to balance utility and efficiency in the design and construction of technology. Modifying and applying the medieval tripartite structure of beauty, I suggest that a technology that allows the beautiful to occur is characterized by fittingness, transparency, and self-containment. It is a technology that fits in: it does not diminish but improves its setting, raising it up into a higher unity. It is a transparent technology: it freely discloses its own limits and thereby discloses a wholeness that transcends it. It is self-contained, limiting itself in order to allow for the occurrence of that which makes it possible.

a. Fittingness.

Pythagoras was the first to explore the relationship of beauty to harmony. All rational numbers are a ratio, but some ratios are more perfect than others. When two equally taut strings with a ratio of relative lengths expressible in whole numbers are plucked, they harmonize. One can hear the harmony of 2 to 1 (the octave), or 3 to 2 (the fifth), or 4 to 3 (the fourth).\(^{30}\) For the Pythagorean the beautiful is perfect ratio, ideal proportion. Hence according to Plato (a disciple of Pythagoras), the artist must know the nature of measure [metron].\(^{31}\) From this Pythagorean background emerges the idea that a thing is beautiful because of the fit of its parts. Beautiful things manifest proportion. James Joyce speaks of “the rhythm of beauty;” “the first formal aesthetic relation of part to part in any aesthetic whole or of an aesthetic whole to its part or parts or of any part to the aesthetic whole of which it is a part.”\(^{32}\)

Fittingness is more than the relationship of parts to whole within the thing. For the thing never stands alone. In the twelfth century Robert Grosseteste writes: “Beauty is a concordance and fittingness of a thing to itself and of all its individual parts to themselves and to each other and to the whole, and of the whole to all things [italics mine].”\(^{33}\) In order for the beautiful to occur the thing must fit with other things. The beautiful structure improves its surroundings. It does not eclipse, but gathers other beings into the light of its shining. Frank Lloyd Wright’s “organic architecture” holds that architecture is beautiful only when the form fits the setting. Architects must carefully choose their site “to make the landscape more beautiful than before that building was built.”\(^{34}\) The shape of the building, the materials used, the situation of the structure in relation to other features, are to be determined with a view to fittingness. Wright says, “My prescription for a modern house: first, a good site. Pick one that has features making for character ... Then build your house so that you may still look from where you stood upon all that charmed you and lose nothing of what you saw before the house was built, but see more.”\(^{35}\) The house improves the site as the well chosen piece of art improves the room in

\(^{31}\) Plato, *Philebus* 64e.
\(^{35}\) Wright quoted in *Wright in the Realm of Ideas*, 44.
which it is placed.

Built things can detract from their setting; they can have the opposite effect as the work of art and effect a diminishment of being. Technology that imposes structure in indifference to setting commits this aesthetic crime. The violation is so commonplace that examples of it are banal: Hydroelectric towers plowing through forests, billboards concealing farmland, skyscrapers walling off a lakeshore, freeways desecrating meadows. Is there no other way for us to accomplish certain tasks than by doing violence to that which we are called to shelter?

Phenomenological Architect Robert Mugerauer asks whether technology “can be encountered in a deeper, more originary manner” by being more “fittingly placed” in the natural and human environment. In Mugerauer’s language a fitting technology “camouflages” itself, “keeps its place” rather than “displacing us.” Camouflage does not originally signify the counterfeit, but that which fits into an environment so well that it cannot be distinguished from that environment. “Something can hide or counterfeit only because it first of all fits in.” Rather than modular, homogenous and replaceable, such a technology would be organic, heterogeneous, and local. To develop a fitting technology requires something which at present is not expected of engineers, careful attention to the structure of our lived world, that is, aesthetic sensitivity.

b. Transparency

To be beautiful in a technical way is to let nature show itself through technology, nature (phasis), not the isolated thing, but the whole from whence it comes and to which it must return. Some interpretations of claritas overemphasize form at the expense of that which makes it possible. Form emerges from matter, the structured from the indeterminate, the luminous from the dark. If with Heidegger we hold the beautiful to be the emergence of being -- not just the being that has emerged, but the very movement of coming to be -- then darkness is essential to it. A beautiful technology will let the dark in, as a zen garden highlights the passing of the seasons. That which obstructs the emergence of form is not the same as that which enables the natural withdrawal of form. Things can only emerge of their own accord if they are also permitted to withdraw of their own accord.

c. Self-containment.

The beautiful does not occur without a moment of restraint. Kant’s famous thesis

37 Ibid., 132.
38 Ibid., 133.
39 Ibid., 135.
about the beautiful, that it pleases us in a disinterested way, is a modern version of the Scholastic distinction between transcendental goodness and transcendental beauty: the former is intentionally determined by desire, the latter is independent of desire. Detachment is not indifference. As Heidegger puts it, to overcome interest is not to sever relations with the object but to establish an essential relationship to it for the first time, so that the object “comes to the fore as pure object.”

A self-contained technology lets form shine without eclipsing nature. Like the painter who knows when to leave a detail at the level of suggestion, the writer who knows when to leave something unsaid, the architect who resists the inclination to ornamentation, a technology that allows the beautiful to occur holds back and lets be. Heidegger calls this “sparing.” It is in his view the essence of dwelling: “Real sparing is something positive and takes place when we leave something beforehand in its own essence, when we return it specifically to its essential being, when we ‘free’ it in the proper sense of the word into a preserve of peace. To dwell, to be set at peace, means to remain at peace within the free, the preserve, the free space that safeguards each thing in its essence.”

In 1854, Thoreau wrote: “We need the tonic of wilderness . . . At the same time that we are earnest to explore and learn all things, we require that all things be mysterious and unexplorable, that land and sea be infinitely wild, unsurveyed and unfathomed by us, because unfathomable. We can never have enough of nature.” His voice is no less relevant (and ignored) today than it was when he wrote these words, at the peak of the industrial revolution. In “The Memorial Address,” Heidegger speaks of a detachment which makes use of technology without allowing it to determine human living, a comportment that expresses ‘yes’ and at the same time ‘no,’ a “letting go toward things.” Cultivating such openness promises us “the possibility of dwelling in the world in a totally different way,” to “stand and endure in the world of technology without being imperiled by it.” Thoreau and Heidegger are saying similar things: If our sprawling cities banish the night sky, and pave over field and forest, if our industry reduces the diversity of life on the planet, if our automobility is incrementally destructive of wild spaces, it is we ourselves who are poorer for it. We deceive ourselves by presuming to be masters of that which makes our living possible.

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40 Heidegger, Nietzsche 1, 110.
41 Heidegger, “Building, Dwelling, Thinking,” tr. Albert Hofstadter, in Basic Writings, 327.
44 Ibid., 55.