

Engaging the Tradition of Reading Nature as a Text

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DRAFT

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“The *Sein zum Texte* does not exhaust the hermeneutical dimension—unless the word ‘text’ is taken to mean above and beyond its narrower sense the text which ‘God has written with his own hand,’ i.e., the *liber naturae*.... One can demonstrate in the reading of this greatest of all ‘books’ the pattern of tension and resolution which structures understanding and understandability... and in this respect it’s impossible to have any doubt about the universality of the hermeneutic problem.”¹

If what makes philosophical hermeneutics “philosophical” is that it holds that the insights into properly understanding texts apply to all instances of understating, then the history of hermeneutics is not to be drawn simply from theories of textual interpretation, but from the history of interpretive understanding as such. The standard histories of hermeneutics either begin with hermeneutics expanding beyond theological texts to all texts— with Ast, Chladenius, or Schleiermacher—and then they move to hermeneutics expanding beyond texts to all interpretation— with Dilthey and Heidegger. Or they begin with the ancients, detour through theological hermeneutics only to emerge again with the step-wise universalizations of Schleiermacher, Dilthey and Heidegger. Such narratives miss the way the interpretation of texts, the interpretation of actions, and the interpretation of the natural world have been historically bound together. Heidegger’s reestablishment of hermeneutics as philosophical is a reparation of a split between how we interpret to understand texts and how we interpret to understand natural phenomena. The standard narrative connects literary and natural understanding as if it were a new insight, when in fact it is an old idea that had lost its mooring.

¹ Hans-Georg Gadamer, “Rhetoric, Hermeneutics and the Critique of Ideology” in *The Hermeneutics Reader*, edited by Kurt Müller-Vollmer (Oxford: Blackwell, 1990), 275.

The history of philosophical hermeneutics has been history of expanding scope. As the tradition expands and becomes more universal it addresses a wider range of philosophical topics and therefore engages a wider range of philosophical traditions. To understand philosophical hermeneutics in its full scope, we must connect it with those wider traditions recognizing when it is taking up themes already addressed in the history of philosophy. That nature can be thought of as a text and that we can gain insights into understanding nature by considering what occurs when we understand texts are fundamental themes of philosophical hermeneutics. They are not new, however. They have appeared in the past in the conception of nature as a book, the *liber naturae*. Only by considering this tradition can we better understand the commitments of philosophical hermeneutics, especially as formulated by Gadamer. Above all we will look closely at Gadamer's phenomenology of reading; as he writes, "what reading is and how reading occurs still seems to me to be one of the darkest questions and one of the things most in need of phenomenological analysis."²

The Book of Nature as an analogue to the Book of Scripture is unthinkable before Augustine.³ The reference to nature as a book goes back at least to Plotinus; understandably a Neo-Platonist would see the world, like a text, as a symbolically ordered means for revealing deeper and more universal meanings. The first Christian ascetic, St. Anthony the Great, compared nature and scripture as texts. When asked how he could approach God alone without any scripture he replied through the text of nature, echoing Tertullian's and Origin's views that we learn of God through nature as well as through scripture. Yet neither Plotinus nor Anthony conceives of nature as something to be read in the same way texts are read. That crucial ancestor of philosophical hermeneutics belongs to Augustine. It was only after the 4th century that one could speak of *the*

² "Philosophy and Literature" in *Man and World*, Vol. 18 (1985): 246.

³ Cf. Dieter Groh's "The Emergence of Creation Theology" in *The Book of Nature in Antiquity and the Middle Ages*, edited by ArjoVandejagt (Leuven: Peters, 2005), 21-34.

Book of Scripture with which one could contrast *the* Book of Nature. It was only with Jerome's translation of *Logos* as *Verbum* that medieval thinkers could take seriously the idea that creation was a kind of linguistic act. Most importantly, Augustine was the first author of a text in hermeneutics, a text whose main function was to instruct people on the best way to read Scripture.⁴ Not only did Augustine use the exact phrase "The Book of Nature," he initiates natural theology with the Neo-Platonic view that the world is a symbolic system pointing us towards the truths of God. Of the four ways of interpreting Scripture the allegorical rises to new prominence with Augustine as he understands *the world itself* as allegorically ordered. Just as words are signs for things, things are signs for other things—the world is a system of symbolic references intended for us to read. Reading a text allegorically is just tracing the allegorical connections among things in the world. The idea that the natural world is a symbolic repository of divine wisdom has come to be called "the emblematic worldview."⁵

Augustine laid the necessary foundation for seeing the world as a text and conceiving of natural understanding on the model of textual interpretation, but it wasn't until the *novus Augustinus*, Hugh of St. Victor in the 12th century that the idea of a *liber naturae* became fully articulated. Hugh writes,

the whole sensible world is like a kind of book written by the finger of God—that is, created by divine power—and each particular creature is somewhat like a figure, not invented by human decision, but instituted by the divine will to manifest the invisible things of God's wisdom.⁶

Augustine did not have the sense of natural philosophy as an activity independent from, but related to, natural theology. That only arrives in the 12th century with the translation into Latin of Aristotelian inspired Islamic texts, and, then, of Aristotle's own texts. Victorine Biblical

⁴ Augustine, *De Doctrina Christina*, translated by R.P.H. Green (New York: Oxford University Press, 1996)

⁵ The classic source for this view is William B. Ashworth, Jr.'s "Natural History and the Emblematic World View" in *Reappraisals of the Scientific Revolution*, edited by David Lindberg (Cambridge: Cambridge University Press, 1990), 303-32.

⁶ Quoted in Peter Harrison's "Hermeneutics and Natural Knowledge in the Reformers" in *Nature and Scripture in the Abrahamic Religions up to 1700*, edited by Jitse Van der Meer, et. al., (London: Brill, 2009), 346.

hermeneutics opened up the use of Pagan and Apostolic authorities to help clarify the “double meaning” of Scripture and codified the practice of glosses and Sentences. These practices of Biblical interpretation mirrored the practices they thought were necessary for natural philosophy. It’s not a coincidence that the 12th century saw both the first full-fledged idea that nature is a text and the proliferation and popularity of bestiaries, texts that map out the symbolic significations of creatures.

The emblematic worldview persisted until the 17th century. Consider Edward Topsell’s introduction to his 1658 natural history.

This sheweth that Chronicle which was made by God himselfe, every living beast being a word, every kind being a sentence, and all of them together a large history, containing admirable knowledge & learning.⁷

In *The Order of Things* Foucault provides the perfect example of how the emblematic worldview was replaced.

Until the time of [Ulisse] Aldrovandi [1522-1605], history was the inextricable and completely unitary fabric of all that was visible of things and of the signs that had been discovered or lodged in them: The history of a living being was that being itself, within the whole semantic network that connected it to the world ... signs were then part of things themselves... . When [Johannes] Jonston [1603-1675] wrote his natural history of quadrupeds ... the whole of animal semantics has disappeared, like a dead and useless limb. The words that had been interwoven in the very being of the beast have been unravelled and removed.⁸

⁷ Edward Topsell, “Epistle Dedicatory” to *The History of Four-footed Beasts*.

⁸ Michel Foucault, *The Order of Things* (New York: Vintage, 1994), 128. The full quotation reads:

Until the time of Aldrovandi, History was the inextricable and completely unitary fabric of all that was visible of things and of the signs that had been discovered or lodged in them: to write the history of a plant or an animal was as much a matter of describing its elements or organs as of describing the resemblances that could be found in it, the virtues that it was thought to possess, the legends and stories with which it had been involved, its place in heraldry, the medicaments that were concocted from its substance, the foods it provided, what the ancients recorded of it, and what travellers might have said of it. The history of a living being was that being itself, within the whole semantic network that connected it to the world. The division, so evident to us, between what we see, what others have observed and handed down, and what others imagine or naively believe, the great tripartition, apparently so simple and so immediate, into Observation, Document, and Fable, did not exist. And this was not because science was hesitating between a rational vocation and the vast weight of naive tradition, but for the much more precise and much more constraining reason that signs were then part of things themselves, whereas in the seventeenth century they become modes of representation. When Jonston wrote his Natural history of quadrupeds did he know any more about them than Aldrovandi did, a half-century earlier? Not a great deal more, the historians assure us. But that is not the question. Or, if we must pose it in these terms, then we must reply that Jonston knew a great deal less than Aldrovandi. The latter, in the case of each animal he examined, offered the reader, and on the same level, a description of its anatomy and of the methods of capturing it; its allegorical uses and mode of generation; its habitat and legendary mansions; its food and the best ways of cooking its flesh. Jonston subdivides his chapter on the horse under twelve headings:

As an illustrative example, Aldrovandi's text devotes thirty-one pages to the peacock, listing every place it appears in the Bible and ancient literature, every symbolic association, every saying, and its characteristic virtues and vices. Jonston's entry on the peacock is only two pages long and sticks to the bird's physiological features.

A number of factors eroded the idea of nature as a world of symbols, but none so great as the Reformation condemnation of allegorical interpretation. Luther wrote, "The literal sense is the highest, best, strongest, in short the whole substance, foundation, and nature of holy scripture."⁹ The allegorical sense required expertise to recognize all the symbolic connections; it entrenched the role of the priests as the necessary intermediaries for the interpretation of scripture. If scripture was to be put in the hands of the people, the possibility of interpreting it must be available to them as well, and the simplest interpretation is the literal one. The reformers were also iconoclasts, removing all images from places of worship. They turned parishioners away from the symbols and rituals of Roman Catholicism and towards the word of scripture. Tellingly Erasmus translated *Logos* not with *Verbum*, but with *Sermo*, living speech.

The end of the emblematic worldview coincided with an explosion of references to the Book of Nature. Seeing themselves, in Kepler's words, as "priests of the Book of Nature" the new natural philosophers took up the phrase as a means for the Biblical justification of their investigations.

Galileo famously wrote

Philosophy is written in this grand book — I mean the universe — which stands continually open to our gaze, but it cannot be understood unless one first learns to comprehend the language in which it is written. It is written in the language of

name, anatomical parts, habitat, ages, generation, voice, movements, sympathy and antipathy, uses, medicinal uses. None of this was omitted by Aldrovandi, and he gives us a great deal more besides. The essential difference lies in what is missing in Jonston. The whole of animal semantics has disappeared, like a dead and useless limb. The words that had been interwoven in the very being of the beast have been unravelled and removed: and the living being, in its anatomy, its form, its habits, its birth and death, appears as though stripped naked. Natural history finds its locus in the gap that is now opened up between things and words.

⁹ Martin Luther "Answer to the Hyper-Christian, Hyper-Spiritual, and Hyper-Learned Book of Goat Emser at Leipzig" in *Martin Luther's Basic Theological Writings*, edited by Timothy Lull (Minneapolis: Augsburg Fortress Press, 2005), 78.

mathematics, and its characters are triangles, circles, and other geometric figures, without which it is humanly impossible to understand a single word of it.¹⁰

He argued that we must read nature literally, not allegorically. In an inversion of the Scholastic view, Biblical interpretation should be primarily allegorical, for languages are merely conventions and words are chosen to accommodate their audiences. Mathematics is the only universal language.

Galileo spoke of nature as text, but only in writings to clergy—using their terms to try to legitimate his research—and he denied any connection between reading nature and reading scripture. For that ancestor of the hermeneutic view we need to look to Francis Bacon and, even more, Robert Boyle. Bacon, who is famous for arguing that the Book of Nature and the Book of Scripture need to be kept apart, also argues that his *New Organon* is a “method of interpretation” and that it requires acquiring the discipline of “literate experience” for successfully reading the book of nature.¹¹ The discipline Bacon argues is required to properly read the book of nature parallel the discipline Protestant reformers argued was required to properly read the Book of Scripture. We must not confuse their messages, but the skills for being a good reader the Two Books are the same.

Yet Bacon didn’t present a hermeneutics that would link together his interpretive method in natural philosophy and his method of textual interpretation such that one method could learn from the other. For that we need to look to Robert Boyle who was an experimentalist through and through and who, like Hugh of St. Victor and Gadamer, holds that we can learn how to read nature by learning how to read a text. He wrote, “each page in the great volume of nature is full of real Hieroglyphicks, where (by an inverted way of expression) things stand for words, and their qualities

¹⁰ Galileo Galilei, *Discoveries and Opinions of Galileo* (New York: Doubleday & Co., 1957), 238.

¹¹ “Set apart for a while, these volatile and preposterous philosophies which have preferred theses to hypotheses, led experience captive, and triumphed over the works of God; and to approach with humility and veneration to unroll the volume of Creation, and to linger and meditate therein, and with minds washed clean from opinions to study it in purity and integrity. For this is that sound and language which ‘went forth into all lands,’ and did not incur the confusion of Babel; this should men study to be perfect in, and becoming again as little children condescend to take the alphabet of it into their hands, and spare no pains to search and unravel the interpretation thereof, but pursue it strenuously and persevere even unto death.” Francis Bacon, *Historia Naturalis* in *Collected Works*, Vol. 1 (Ithaca, NY: Cornell), 132-3.

for letters.”¹² Boyle argued both books had the same author, had complementary and at times overlapping messages, and needed to be read as completed wholes.

Part of Boyle’s hermeneutics is Reformation boilerplate—you have to consider the audience Scripture was written for in order to see how expressions were “accommodating” their limited understanding. This requires knowing the original languages and idioms of the times in which Scripture was written. You must read not to answer current debates, but merely to learn what the text says; better to “conform [opinions] to the sense of the Scripture, than wrest the words of scripture to them.”¹³ You learn what the text says by coming up with a hypothesis that makes sense of the text in the context of sentences around it, and then in the context of the whole book. Since it has a sole, omniscient author, no part of Scripture can contradict any other part. Even books as diverse as Genesis and Revelations are “reciprocal Commentaries.”¹⁴ Boyle held a progressive understanding of interpretation—an interpretation builds on the ones that come before it. Only over time, when confirmed by others and seen to fit with other interpretations developing at the same time, can we say we have arrived at a proper interpretation. There is a close analogy here between how textual interpretation should operate and how a successful scientific community should operate: through the collection of historical and experimental data, the formation of hypothesis, and the testing of these hypotheses to see if they are consistent with what is known from other areas of natural inquiry. Just like the Book of Scripture, the Book of Nature can never contradict itself as it too is created all at once by an omniscient God.

¹² Robert Boyle, “Of the Usefulness of Natural Philosophy” in *The Works of Robert Boyle, Vol. 3*, Edited by Michael Hunter and Edward B. Davis (London: Pickering & Chatto, 1999), 233.

¹³ Robert Boyle, “Some Considerations Touching the Style of the H[oly] Scriptures” in *The Works of Robert Boyle, Vol. 2*, Edited by Michael Hunter and Edward B. Davis (London: Pickering & Chatto, 1999), 419.

¹⁴ Robert Boyle, “Some Considerations Touching the Style of the H[oly] scriptures,” 420.

Hugh of St. Victor and Robert Boyle, one from Foucault's "classical episteme," one from his "modern episteme," argue for the conclusion defended by contemporary philosophical hermeneutics: natural objects and events can be appropriately thought of as texts since we understand them in the same way we understand written texts. Moreover, all hold that insights into how we understand texts can shed light on how we understand the natural world. As philosophical hermeneutics expands its scope, it expands the way it intersects with other traditions and only by becoming self-reflective about these precursors can it become clear what philosophical hermeneutics requires.

What should be utterly apparent is that the classical defenses of *liber naturae* only work because they are taking nature to be authored by God for the sake of human edification; this is not a view held by contemporary hermeneutists. Moreover when Hugh of St. Victor and Robert Boyle say we can apply what we know about interpreting texts to interpreting the natural world, they are presenting a Biblical hermeneutics and their hermeneutics uniquely applies to texts authored by an omnipotent being. So it's not clear why a contemporary thinker would accept the idea that nature is a text if he or she did not accept the idea that nature has an author who is communicating through it.¹⁵ Nor is it clear how a general hermeneutics that applies to all texts might be useful for understanding the natural world. The analogies that made the connection work for Hugh of St. Victor and Robert Boyle, are no longer in play for Gadamer. Also Gadamer has far less to say about the interpretation of nature as such; rather his focus is on the interpretation of texts, works of art, at his most general, "things." "We speak not only of a language of art but also of a language of nature—in short, of any language that things have."¹⁶ "Things" are "die Sache," the issues at stake in

¹⁵ Bas van Fraassen asks this question and attempts to answer it from his empiricist perspective in "Literate Experience: The [De-, Re-] Interpretation of Nature" (*Versus* 85/86/87 [2000], 331-358).

¹⁶ *Truth and Method*, 470.

conversation. The universality of hermeneutics means the consideration of all things as texts, not just nature.

We must consider what resources Gadamer has for taking seriously the *liber naturae*. We'll find a novel and compelling picture of how language functions in understanding the natural world and discover Gadamer's overlooked phenomenology of reading. Gadamer can avoid the concern that he doesn't think of the natural world as authored as he does not think capturing the views of an author is the point of reading a text. The text is meaningful as it stands, whether the meanings are what the author intended or not. Gadamer often notes that, "reading does not wish to be a reproduction of what was originally spoken"¹⁷; by this he means that we are not trying to recapture an original authorial intention when reading a text. Instead, reading is a performance. He compares it with the performance of a piece of music or a work of art. Indeed, reading "is the basic form in which all encounter with art takes place."¹⁸ The performative aspect of reading always brings meaning to language anew.¹⁹ Freeing himself from concerns of authorial intent frees Gadamer from having to be concerned that nature is not authored. Moreover, according to Gadamer it is not because the words are means of communication that the text is meaningful, it is because the words are disclosive. Gadamer will go so far as to argue that language is not first and foremost communicative; it is communicative because it is disclosive. Thus Gadamer need not be concerned that speaking of nature as a text suggests a Divine author.

Still, one might think there is a crucial disanalogy: in the case of texts we understand words; in the case of the natural world we understand things. It's difficult to see how perceptual understanding is like reading unless we first grasp how reading is like perception. Gadamer argues

¹⁷ "The Artwork in Word and Image" in *The Gadamer Reader*, edited by Richard Palmer (Evanston: Northwestern University Press, 2007), 218.

¹⁸ Hans-Georg Gadamer, "Reflections on my Philosophical Journey" in in Hahn, Lewis, ed. *The Philosophy of Hans-Georg Gadamer* (Chicago: Open Court, 1997), 51.

¹⁹ Gadamer's clearest statement about authorial intent comes in his book on Paul Celan, "All that matters is what the poem actually says, not what it's author intended and perhaps did not know how to say" (Hans-Georg Gadamer, *Gadamer on Celan: Who am I and Who are You? And Other Essays* [Albany: SUNY Press, 2012], 68).

with Heidegger that all understanding is interpretive—all understanding is linguistic. Understanding, according to Gadamer, is always a process of making something present through language. So language is at work in both cases. Moreover, Gadamer thinks we have a world at all only because we are linguistic beings. Non-linguistic beings function in an *Umwelt*, an environment; humans live in a possibly intelligible *Welt*, a world, only in virtue of linguisticity. That is, natural things are disclosed to us as potentially meaningful and potentially intelligible only because we have acquired language. This is not to say we only experience things for which we have words, rather linguisticity leads us to perceive things as being capable of being made intelligible through language. It is in this sense that Gadamer can claim that vision is “an articulating reading.”²⁰ As language plays a central role in disclosing the natural world to us as something to be understood, and as bringing something to language is the only means for making something intelligible, the disanalogy between understanding words and things is not as strong as it might seem.

Does that mean that to understanding words is the same process as to understanding things? Gadamer says yes, based on his phenomenology of reading.²¹ Words are meaningful because they are disclosive; Gadamer adds that it belongs to the essence of language that it vanishes in its disclosiveness. He calls this the “essential self-forgetfulness that belongs to language.”²² Following Heidegger, Gadamer argues that the breakdown in the immediate disclosiveness of words can only occur because words proximally and for the most part disclose unobtrusively. He writes that, “we know that we are able to read something when we cease to notice the letters as such and allow the

²⁰ *Truth and Method*, 79.

²¹ Gadamer reports devoting an entire semester in 1929 to the question of reading, and his 1992 discussion of art, “The Artwork in Word and Image,” contains an extended discussion of the nature of reading. It’s a topic he returned to throughout his career and one that comes up repeatedly in his essays and talks. One of his most provocative points is that there was a shift in Protestant Europe from the rhetorical listening to speech to the hermeneutical skills of reading—“the turning point between rhetoric and hermeneutics” (“The Hermeneutics of Suspicion” in *Man and World*, Vol. 17 (1984): 314).

²² Hans-Georg Gadamer “Man and Language,” in *Philosophical Hermeneutics*, 64.

sense of what is said to emerge”²³ and that “the unity of understanding and reading is only accomplished in a reading that understands and at that moment leaves behind the linguistic appearance of the text.”²⁴ Stepping back and paying attention to the text, rather than what the text is about, is an unnatural interruption of the process of reading. It’s extraordinarily difficult to see words and not in the same act read the words. The analogue would be paying attention to a sound rather than what the sound is of. The fact that we can pay attention to a sound has led philosophers to mistakenly think we are hearing the sound, and only inferring what the sound is about. Likewise the fact we can focus on a text has led philosophers to mistakenly think we are being presented with the text, and inferring the meaning, rather than being presented with the meaning. Gadamer criticizes Derrida on just this point. “Derrida sounds as if he were a distant observer of the infinite network of all signs and of all references to other things. This is really an example of his use of the language of metaphysics put forward on the philosophical basis of nominalism.” Instead Gadamer points out that we can never stand back from language like this, “we stand already in the middle of it”.²⁵

Gadamer argues that reading lies not in attentiveness to the words, but in attentiveness to what the words disclose. Understood phenomenologically, reading is not about a text taken up through sight, but about meanings taken up through language. Gadamer emphasizes that all reading is dialogical and in dialogue what we are trying to understand is not the other person or the other person’s words, but the subject matter of the dialogue (*die Sache*). That words are the vehicle for the understanding is no different, according to Gadamer, than our vision being the vehicle for sight. In fact, for Gadamer language belongs more than anything else to our faculty of perception: “through

²³ Hans-Georg Gadamer “The Relevance of the Beautiful” in *The Relevance of the Beautiful and Other Essays*, translated by Robert Bernasconi (Cambridge: Cambridge University Press, 1986), 48.

²⁴ Hans-Georg Gadamer “Text and Interpretation” in *The Gadamer Reader*, 189.

²⁵ “Hermeneutics Tracking the Trace” in *The Gadamer Reader*, 388.

reading something visual is awakened.”²⁶ Just as experience is properly understood as *Erfahrung*, as essentially transformative, and only derivatively as *Erlebnis*, as something that happens to our perceptual faculties, reading is essentially learning. We have only interpreted a text properly if we have learned something from it. The perceptual awareness of meaningful words is not yet reading. Although our students might claim to have read a text without understanding it, Gadamer is right to point out this impossibility.

By combining together his rejection of authorial intent, his emphasis on language for all understanding, and his phenomenology of reading Gadamer can explain how it is that nature can be thought of as a text and that insights about interpreting texts can illuminate how we understand nature. His views are quite different from those that preceded him—Hugh of St. Victor’s emblematic view of the world and symbolic view of reading, and Robert Boyle’s experimentalist approach to the two books of nature and scripture—yet it is only by considering these antecedents that we recognize the need to better articulate Gadamer’s own position, that “all of our experience is a reading.”²⁷ As philosophical hermeneutics expands its scope it expands its thematic intersections with views of the past. I’ve presented one example, the history of the metaphor of the *libre naturae*, and the result is we have a better understanding of how language functions, for Gadamer, in our understanding of the natural world, and a better appreciation of the importance of an overlooked theme across his writings, a phenomenology of reading.

²⁶ Hans-Georg Gadamer, “Hearing, Seeing, Reading” in *Language and Communication* 10(1): 87-92 (1990), 89. In “Plato as Portraitist” he writes, “Reading Plato is learning to see” (*Continental Philosophy Review*, Vol. 33 (2000): 271).

²⁷ “Hearing, Seeing, Reading,” 92.