

Introduction

Environmental Philology

On April 30, 1844, Henry Thoreau, son of a pencil maker, now a figurehead for the modern environmental and sustainability movements, burned down three hundred acres in the Concord Woods near Walden Pond. The loss of timber and lumber from the blaze was estimated at over \$2,000, a huge sum for the time. Wildlife perished. An entire ecosystem (though that term had not yet been invented) was decimated. Predictably, Thoreau became Concord's resident pariah, earning the nickname "woods-burner" from the townsfolk. The fire, as one might imagine, was an accident: Thoreau and a friend were cooking stew over an old stump after a morning spent fishing when their small fire got out of hand in dry and windy conditions. But the mishap was also, according to Thoreau's biographers, a primal scene – a catalyst of remorse and reorientation that propelled the twenty-six-year-old Harvard graduate into his bold experiment "to live deliberately" on Emerson's woodlot at the Pond just one year later.

It is hard not to enjoy the scintillating irony that the iconic creator of American environmentalism was also, Shiva-like, a great destroyer of the natural world. Thoreau's traumatic experience of the fire at Concord Woods must indeed have been a formative moment. At the very least it "set in motion a series of events that might not otherwise have happened," as one commentator puts it. Yet the origins of things often go unnoticed, or are forgotten, and can be hard to trace. The fire, for example, does not loom large in the popular imagination about Thoreau, who is remembered chiefly as a careful observer and conservator of Nature, a champion of self-reliance, and an architect of civil disobedience. To all but Thoreau scholars it lay snugly dormant until a good-humored contrarian's book from a few years ago – *The Thoreau You Don't Know* – drew public attention to it once again.¹

Another aspect of Thoreau's development – the topic of this book – that, like the fire, tends to elude popular imagination, is that Thoreau's

interest in simple, sustainable living, and his practice and advocacy of conscious integration with one's environment in every facet of experience – what is today sometimes called “deep ecology,” or a “systems view” of life – was grounded in his reading of Greek and Latin literature, philosophy, and history. The following pages about the conceptual origins of sustainability and systems thinking in antiquity takes its cue from Thoreau: It is a book about reading, about the genealogy of ideas, and, like all genealogies, it forms a *stemma* that harks back to progenitors. Indeed, what we will be tracing here is something akin to a cultural DNA.²

Like Thoreau, the ancient Greeks and Romans have also been charged with destroying the ecosystems in which they lived. They overgrazed marginal scrublands. They deforested mountainsides to build warships and to provide fuel for the refining of silver and for cooking. Both activities cause soil erosion and nutrient depletion. They diverted and polluted rivers. They hunted species to extinction. They plundered, pillaged, and burned. J. Donald Hughes calls his book on this topic *Environmental Problems of the Greeks and Romans* (2nd ed., Johns Hopkins, 2014). His survey and assessment of the evidence, groundbreaking for the field of Classics in the book's first iteration, is concerned almost exclusively with the impact of ancient societies and economies on the landscape, not with the conceptual roots of sustainable systems in ancient thought and culture. Yet the results of an inquiry along those lines – the direction pursued here – in many respects flies in the face of the premise of Hughes's book and others like it and strikes me as by far the more interesting and fruitful line of investigation. Ancient thought and practice, in other words, have much to offer by way of environmental *solutions*, as we shall see.³

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Of making many books there is indeed no end, so it goes without saying that others have written effectively on topics treated also in this one. My own reading in environmental history and philosophy is not exhaustive, but I discern broadly two main approaches that have been taken thus far to situating evidence from the ancient world in a framework of environmental concern. One approach, that of Hughes, describes how ancient peoples and societies interacted with their environments and to what effect. Another involves the realm of ideas. This approach probes ancient conceptions of Nature and weighs various normative attitudes and “best practices” associated with human beings' engagement with it.⁴

An example of the descriptive approach is Robert Sallares's *The Ecology of the Greek World* (Cornell, 1991). Sallares provides an impressively

detailed account of the ancient Greeks' physical interaction with their environment and the corresponding social structures that supported it. Sallares's work is historical and treats topics as wide-ranging and interconnected as population size and density, fertility rates, disease, and agricultural practices and crop yields. His time frame spans geologic prehistory to the late Roman period. Peregrine Horden and Nicholas Purcell offer something similar, but even more far-reaching, in *The Corrupting Sea: A Study of Mediterranean History* (Wiley-Blackwell, 2000). Horden and Purcell extend the field of inquiry to the whole Mediterranean basin and describe their venture, following methods pioneered by French historian Fernand Braudel, not as the writing of history taking place "in" Mediterranean lands, but as a history "of" the entire region, including its populations, as a defined ecological unit with shared, characteristic features. An offshoot of this ecological approach stems from a recent surge of interest in catastrophism, sprung no doubt from our own contemporary crises. And so we find published recently Kyle Harper's *The Fate of Rome: Climate, Disease, and the End of an Empire* (Princeton, 2017), a sweeping reappraisal that seeks not to deny human agency in the events that precipitated the fall of Rome, but to situate Rome's decline and fall in a context that takes full account of environmental factors like climate change and pandemics. The degree to which the evidence for that argument is a game-changer for historians will be in the eye of the beholder, but it is a positive development to see classicists marshalling modern scientific knowledge to enhance our understanding of the past.⁵

Frank Egerton's *Roots of Ecology: Antiquity to Haeckel* (University of California, 2012) is perhaps as good an example as any of the history of ideas approach, though for antiquity it is hampered by the author's second-hand acquaintance with Classical sources. Donald Worster's *Nature's Economy: A History of Environmental Ideas* (Cambridge, 1994), which is otherwise excellent, suffers from a similar disadvantage. Other engagements with Classical thought, however, run deeper. Gerard Naddaf's *The Greek Concept of Nature* (SUNY, 2005), Pierre Hadot's *The Veil of Isis: An Essay on the History of the Idea of Nature* (Harvard, 2006), and Clarence Glacken's *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (University of California, 1967) stand out to me in this regard. John Sallis's *The Figure of Nature: On Greek Origins* (Indiana, 2016) works in this same vein. The anthology of ancient extracts with explanatory commentary and essays in J. Baird Callicott and John van Buren's *Greek Natural Philosophy: The Presocratics and their Importance for*

Environmental Philosophy (Cognella, 2017) is a reliable, accessible guide, admirable for its clarity and readiness to apply ancient ideas to contemporary environmental issues.

My own views have certainly been enlarged and improved by various of these approaches. Nonetheless, I do not seek to engage with or critique them directly. Instead, I offer something different.

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“It is not all books that are as dull as their readers,” Thoreau declares in his chapter from *Walden* entitled “Reading”:

There are probably words addressed to our condition exactly, which, if we could really hear and understand, would be more salutary than the morning or the spring to our lives, and possibly put a new aspect on the face of things for us. How many a man has dated a new era of his life from the reading of a book.

Because of their signal importance, books, for Thoreau, deserve to “be read as deliberately and reservedly as they were written.” Life and literature are of a piece: Both should be objects of deliberate effort and attention, and one domain impinges on the other. Indeed, Thoreau summarizes his *Walden* experiment in the same terms, as if life were a kind of literature: “I went to the woods because I wished to live *deliberately* . . .” And then he wrote a book about the experience.

Those of us who read and write for a living understand the transformative power of close and careful engagement with texts. For classicists in particular, texts and reading, coupled with analysis, reflection, speculation, reconstruction, and comparison, is our principal evidentiary mode of engagement with the world. Ever since Eratosthenes of Cyrene, academic head of the great Library of Alexandria, coined the term in the third century BCE, scholars have called this approach to rational inquiry *philology* (“fondness for discourse and language”). Eratosthenes defined the method (in a report preserved by a later biographer) as “a course of studies that is many-sided and composed of many different elements” (*doctrina multiplex variaque*). A man of letters and accomplished mathematician who first calculated the circumference of the Earth, Eratosthenes embodied his own ideal. In more modern times, a black sheep of our discipline once defined philology as the art of reading slowly. That it certainly is. At the same time, classicists also pride themselves on the origin of their field in nineteenth-century German scholarship with its broad-brush, multidisciplinary approach to the study of antiquity, what its practitioners dubbed *Altertumswissenschaft* (“The Science of Antiquity”). It is telling that

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Altertumswissenschaft, which enshrines the methodologies of Classics, contains the word “science” (*Wissenschaft*). In an age dominated by the STEM disciplines, the relevance of ancient thought and practice to contemporary concerns, including scientific pursuits, is usually thought to be negligible or a dubious prospect at best. Yet here, too, Thoreau – himself equal parts observing scientist and literary scholar – turns a false dichotomy on its head:

Men sometimes speak as if the study of the classics would at length make way for more modern and practical studies; but the adventurous student will always study classics, in whatever language they may be written and however ancient they may be. For what are the classics but the noblest recorded thoughts of man? They are the only oracles which are not decayed, and there are such answers to the most modern inquiry in them as Delphi and Dodona never gave. We might as well omit to study Nature because she is old.⁶

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As a naturalist, philosopher, and literary stylist, Thoreau closely resembles the Roman Seneca. As a Stoic, Seneca, too, touted a philosophy of self-reliance and of living according to Nature. Like Thoreau, he wrote extensively on *Naturales Quaestiones*. And in terms of style, no two writers are closer, in function as well as form: Paraenetic in orientation, both are merciless and incorrigible punsters who are perhaps overly fond of their own metaphors and digressions (but ingenious nonetheless in their use thereof). It was not for nothing that Thoreau studied Seneca as an undergraduate at Harvard College and kept a copy of his works in his personal library.⁷

In Letter 84 to Lucilius, Seneca propounds his own theory of reading. It is a model for my own practice, too, and for the approach I take here to thinking about the environmental and ecological problems of the modern world. “Reading is necessary,” Seneca writes, “first, to prevent me from being complacent [*ne sim me uno contentus*]; and then also so that, once I have ascertained what others have investigated, to make up my own mind about what they have discovered and to figure out what needs still to be discovered.” The Latin of that last phrase is especially exquisite and worth quoting for its sound parallelism and clever chiasmus – *et de inventis iudicem et cogitem de inveniendis* – which suggests, simultaneously, in one fell swoop, the intimate, reciprocal relationship between thinking (*cogitem*) and forming judgments (*iudicem*) on the one hand, and between searching, *inveniendis* (a participle expressing future tense), and discovery, *inventis* (perfect tense), on the other.

“We should imitate the bees,” Seneca continues, with an appeal to Nature, but flaunting also his own wide reading, in this case of Vergil (whom he quotes), and “whatever we collect from varied reading” to distribute internally. Extending the analogy, Seneca enjoins us literally to digest what we take in, like bees spreading their pollen and nectar throughout the hive comb. Swallow something whole, he says, and it bobs about uncomfortably in your stomach like a cargo ship tossed upon the waves. But once it’s metabolized, it passes into your bloodstream and gives you energy and strength. Internalize what you read. Digest it like food, so that even if there’s a trace of where it came from, it will nevertheless be changed from its original form. Nature, Seneca is keen to point out on this score, does this in our bodies of its own accord, unseen, without any intervention or effort on our part. “Let your mind, then, too, do as follows,” he concludes: “Whatever has helped shape it, keep that hidden; only reveal what your own thoughts have produced.” Inevitably, Seneca concedes, even with such absconding of intellectual influence, people will discern some resemblance to a source or model. But the similarity they perceive should be authentic: “More like a son [*filius*] than a simulacrum,” he says with reference to Roman funerary masks (*imagines*), “for a death mask is dead matter” (*imago res mortua est*).

Seneca’s disquisition on reading is a textbook description of what complexity scientists call self-organization and emergence. The self-organization of organisms and the emergent properties that ensue from the interactions of their parts are the hallmarks of all complex systems, as we shall see. Bees, in fact, are a textbook example of complexity, as is the human body. Seneca’s analogies of self-organization (bees, the body) link both reading and the activity of writing closely with cognition. The new whole that emerges from this interactive process – *Invicem hoc et illo commeanandum est et alterum altero temperandum* is how Seneca puts it in one perfect, jewel-like sentence (“In turns, the former is to be interchanged with the latter and the one should be balanced out by the other”), with *hoc/alterum* referring to writing, *illo/altero* to reading (or, indeed, vice versa) – is said to be something “other than” its parts (*aliud tamen esse quam unde sumptum est*). That insight is impressive enough, an echo perhaps of a similar idea about parts and wholes expressed by Aristotle (*Metaphysics* 1045a10–11) to which we shall return later. But to compare the outcome of cognitive activity to biological offspring (*quomodo filium*) is downright visionary. It is, in any case, more than a mere metaphor, for Life itself, the biologists now teach us, is an emergent property: As described in the so-called Santiago Theory of *autopoiesis*, for example, first articulated by

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Francisco Varela and Humberto Maturana, cognition, the process of knowing, is identical to the process of Life wherein organic systems recognize and respond to patterns of their self-organization and continually regulate and modify themselves as they interact with and in turn impact their environments.⁸

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Imago res mortua est. The difference, for Seneca, between the quick and the dead is authenticity, expressed in the Latin of Letter 84 by the word *ingenium*. *Ingenium* – literally that which is in-born, an innate quality or talent, a disposition or aptitude developed naturally over time (one would say today genetically and conditioned by interaction with one's environment) – is what we must apply to what we take in to make it our own (cf. §§1, 5, 6, 7). No doubt, like all authors, Seneca, too, dons a mask. Yet in spite of the fact that “impression management” and “persona theory” are practically household phrases these days, Seneca and Thoreau still elicit strong reactions among readers; both are frequently called out for *inauthenticity*, hypocrisy, narcissism, and arrogance: Seneca, the ascetic, principled Stoic, was also the richest man in Rome and a complicit “senior adviser” to Nero; Thoreau, a self-appointed guru of transcendental bliss and self-reliance, besides being a woods-burner and general misanthrope, trundled home from his cabin in the woods on weekends to do his laundry. Just recently, in Thoreau's case, poor Henry was roundly condemned for these and similar shortcomings in *The New Yorker* only to be exonerated in *The Atlantic* within a matter of days. Misplaced animus and passionate defenses alike arise, I think, because readers fail to see through the personas both authors wear in their writings. But as Seneca duly notes in a remark directed at Nero (*de Clementia* §6), plying the verb *ferre* in two of its primary senses, “No one can wear – or bear – a mask for long” (*nemo enim potest personam diu ferre*). To be authentic, then, is not to be without masks, or flaws, or blemishes. Perhaps the best way to define authenticity is to invoke its opposite, what the Existentialists call “bad faith,” and the Marxists “false consciousness” – that is, in the face of knowledge, argument, evidence, and conviction, *not* to choose, *not* to make something one's own and act upon it, but rather complacently to acquiesce to social, psychic, or institutional states of affairs, constraints, or presumptions.⁹

“To unite my avocation and my vocation” is how Robert Frost, a neighbor here in Vermont from yester yore, once described the object of living (in his poem “Two Tramps in Mud Time,” published in 1936). I admit to sympathizing with this impulse. And I have conducted some field research in this area. In addition to my day

job as a classicist, my wife and I own and operate a farm. I stole its name from Hesiod, but everything else we built ourselves from scratch – house, barns, outbuildings, fences – without a trust fund, and without a mortgage. Stereotypically (and perhaps approaching self-parody), we raise sheep, but round things out with Scottish Highland cattle, egg sales, and a maple sugaring operation. We have dabbled in bees, goats, and pigs, tend good-sized gardens, and dote on two lovely donkeys. We are small enough to be “sustainable” (more on what that might mean at the end of this book) but just large enough to be dangerous. (We must file IRS Schedule F.) The operation pays for itself, but, like most small farmers, we are glad for our day jobs. As far as the work goes, as Hesiod says (*Works and Days* 825), “Sometimes a day is a mother, sometimes a step-mother.” We try not to wear any of this on our sleeves, but among the many reasons we choose to live this way is the wisdom of John Ruskin, a contemporary of Thoreau, who observes in *The Stones of Venice* (1853):

We want one man to be always thinking, and another to be always working, and we call one a gentleman, and the other an operative; whereas the workman ought often to be thinking, and the thinker often to be working, and both should be gentlemen, in the best sense. As it is, we make both ungentle, the one envying, the other despising, his brother; and the mass of society is made up of morbid thinkers and miserable workers. Now it is only by labour that thought can be made healthy, and only by thought that labour can be made happy, and the two cannot be separated with impunity.¹⁰

Academics speak of great works of art and literature and of reception. But life itself, I submit, is also a work of reception – the vital publication of careful reading, research, and experimentation about how to get on in the world. *Walden* bears this proposition out: At the end of his powerful chapter entitled “Spring,” Thoreau declares baldly “Thus was my first year’s life in the woods completed; and the second year was similar to it. I finally left Walden September 6th, 1847.” That Thoreau’s second year was similar to his first, however, is patently untrue. For one thing, that was the year he spent time in jail for not paying his poll tax. He also built a summer cabin for Emerson with his friend Bronson Alcott and climbed Mount Katahdin in Maine. The truth is rather that Thoreau collapses the experiences of two years at the Pond plus seven intervening years of reading, writing, and reflection into one *annus mirabilis*. *Walden* is, in other words, in a very real sense, a life’s work of reception.

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Thoreau's treatise on "Reading," we have seen, champions the Classics in particular as wellsprings of fresh ideas for ecological living. "I kept Homer's *Iliad* on my table through the summer," he writes, reflecting back on his Walden experience, "though I looked at his page only now and then. Incessant labor with my hands, at first, for I had my house to finish and my beans to hoe at the same time, made more study impossible." And yet, as Ruskin pronounces with such eloquence above, head work and hand work, like literature and life itself, form a harmonious whole. For his part, Thoreau thrills to the hard work of reading the Classics:

The student may read Homer or Aeschylus in the Greek without danger of dissipation or luxuriousness, for it implies that he in some measure emulate their heroes, and consecrate morning hours to their pages. The heroic books, even if printed in the character of our mother tongue, will always be in a language dead to degenerate times; and we must laboriously seek the meaning of each word and line, conjecturing a larger sense than common use permits out of what wisdom and valor and generosity we have.

Wisdom. Valor. Generosity. The ancients themselves were pragmatists in this regard. With the exception of perhaps the Sophists or the Skeptics, no ancient philosopher ever tendered or entertained an argument or idea without some genuine conviction that it was inherently worth considering, and, if found tenable or otherwise compelling, should be acted upon in some fashion. At some point the masks come off with the gloves and we must grapple, as Horace puts it (*Epistles* 2.3), also in reference to reading the Classics – indeed in reference to Homer himself – with "what is fine, what is foul, what is useful, what is not" (*quid sit pulcrum, quid turpe, quid utile, quid non*). And then there is that marvelous phrase "conjecturing a larger sense than common use permits." This is Thoreau's take on that hermeneutical kind of emergence described by Seneca: to sift and extend the preexisting ideas we ingest; to put on the "seething brains" of Shakespeare's poets, lovers, and madmen, to whom Thoreau seems to allude here, and stand ready to entertain in our reading and reflection something "more than cool reason ever comprehends."¹¹

And therein lies a proposition, one that seeks to capture an implicit, cumulative argument of this study: namely, that *sustainable lifestyles and stable societies are realizable only in proportion to the degree we understand and treat the world as the complex system that it is*. Classical studies certainly informs the thinking behind this formulation, but the postulate itself goes well beyond the traditional confines of the field. An inspiration on this point is the work of Richard Seaford, who advocates for just this kind of

endeavor in his 2009 Presidential Address to the Classical Association of the UK, “Ancient Greece and Global Warming.” “Devotion to our subject,” he declares, “can co-exist with an inner voice urging the prior claims of more urgent issues.” What I aspire to here, then, is a work of scholarship that is not so much a work about reception (though it is that too) as *of* reception: Partly a collection of case studies about systems and sustainability in Greek and Roman institutions, myth, literature, and philosophy, partly a meditation on living deliberately and ecologically in the modern world, partly a history of emergent ideas, and partly a work of literary and cultural criticism, this book is hybridic by necessity and design and somewhat experimental in form. If one were pressed to call it something, a label as good as any would be to say that it’s a reader-response approach to our inherited past, a response informed by the pressing contemporary issues of climate change, environmental degradation, loss of biodiversity, wanton overconsumption in some echelons of society, crippling poverty in others, and dehumanizing, politically volatile socioeconomic inequities across the board. Another way to see this work is as a preliminary contribution to a new field, one we might call, on analogy with other similar collocations, *environmental philology*.¹²

The book is organized as follows.

Chapter 1 (“Debts to Nature”) explores Greek myths about overreach and encroachment involving the operational deity the Greeks variously described as *Potnia Thērōn* (“Mistress of the Animals”), the Great Goddess, or the Mother of All, whose domain is Nature. I also tease out the implications of some sustainability principles I see embedded and at work in Greek cult, especially acts of reciprocity and exchange in sacrificial ritual, which I ultimately explain by way of Albert Schweitzer’s philosophy of “Reverence for Life” (*Ehrfurcht vor dem Leben*). The poet Hesiod is proffered as an adherent to this kind of worldview and as an early systems thinker, deeply concerned about sustainable living.

Chapter 2 (“Anaximander for the Anthropocene”) first presents a formal sketch of modern complexity theory, then argues that the cosmological propositions of Anaximander of Miletus represent a style of rational thinking in Greek antiquity, founded on analogy, to which modern systems science owes an unacknowledged debt. The systems approach to the world first adumbrated by Anaximander’s natural philosophy, I suggest further, provides the conceptual basis for any meaningful sustainability ethos, even in the modern age.

Heraclitus’s doctrine of a cosmogonic unity of opposites held together in *harmoniē* (“harmony”) is the topic of Chapter 3