## Exceptional Measures The Human Sciences in STEM Worlds

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I have imagined a man who might live as the coldest scholar on earth.

-John Haines, The Stars, the Snow, the Fire (1989)

And all that has existed in the space of six thousand years: Permanent, & not lost not lost nor vanishd, & every little act, Word. work. & wish. that has existed, all remaining

-William Blake, Jerusalem (chap. 1 plate 13)

Almost 2,500 years ago Socrates and Plato spent their lives promoting the thought that "there is nothing at the same time finer and more practical than the truth." Their key word was "aletheia"—usually translated "truth," or the disclosure of obscured or hidden reality. Humanists have championed and pursued the idea ever since. Most men and women of science share that humanist commitment.

That is what I want to talk about: the education and scholarship that promotes Truth and Method and their everyday human practicality.<sup>2</sup> Because today that subject is shaped by our online and digital circumstances, it is often approached as a technical problem of epistemology, management economics, or institutional policy. After all, we *are* data-point functions in a complex internetwork of social media. But that is exactly why the problem of truth and method is, and has always been, an ethical problem, pressing for ourselves as individual moral agents, and why it has had certain highly charged mythic names like Socrates, Doctor Faustus, Victor Frankenstein, Ahab. Each brings an ethical emergency into sharp focus. Edward Snowden is the mythic name for an ethical emergency of our time.

Most of the people I will talk about we wouldn't call scholars, least of all characters of myth. All of them are Americans, a choice I make for three reasons, First, I am their secret sharer, for better and for worse. I see them from

an inner standing point. Second, Americans have always had a decided yen to throw technical resources and solutions at every kind of problem. And third, the American empire is a virtual empire and Edward Snowden is the empire's demon child.

Some of the people I shall discuss are celebrated Americans, like Emerson and Thoreau. One is less celebrated but in my view perhaps no less glorious —the environmentalist Barry Lopez. And one other is more famous than he is celebrated—Vice President Dick Cheney. Two card-carrying scholars will also make an appearance. With respect to our space-time and my interests, all are what Emerson would call "Representative Men." They help me think about the place of scholarship and education in our mediated and furiously presentist world.

Scholarship and education, our particular vocational obligations, are increasingly organized through automated data machines and the social agents that manage them. This institutional effort to save, share, augment, and engineer knowledge and information with digital resources is alternately lamented and extolled by humanist scholars, and in each case with good reason.

Consider the plus side. Digitization is already promoting research that would not have been possible using traditional so-called analog tools, and we are only beginning to explore the capabilities of this technology. But all technologies have always been machines of Enlightenment, as the history of book and other textual technologies themselves testify. As such, they are also all Faustian technologies. They underwrite those myths of mastery and control recently studied as the *Dialectic of Enlightenment*.<sup>3</sup> We can now data mine just about everything and everyone we've never heard of. But of course that is precisely the problem. Perhaps never before have we been able to "know about" so much and yet to *know* so little of what we know.<sup>4</sup> Gaining power, we become alienated from our weaknesses, according to the mighty working that Thomas Hardy long ago sketched in his reflections on the *Titanic*:

And as the smart ship grew
In stature, grace, and hue,
In shadowy, silent distance, grew the iceberg too.<sup>5</sup>

That is our situation today, as Paul Connerton, among many others, has helped us to see. But it is a situation with a long history, probably as long

as human history itself. Here my pitiful American view picks up from August 1837, when Ralph Waldo Emerson delivered a lecture to the Phi Beta Kappa Society in Cambridge. It would be my country's most influential manifesto for the scholar's vocation. Working from an image of "the Soul erect and Unconquered still" (*Journal*, May 21, 1837), Emerson elaborated what he called "a theory of the Scholar's office": "to read in all books . . . the one incorruptible text of truth" (*Journal*, July 29, 1837). At the theory's core was the view he had introduced in the previous year with his Transcendentalist testimonial, *Nature*. What that essay called the "transparent eyeball" became in the lecture "Man Thinking." Emerson was proposing an Enlightenment ideal of intellectual freedom as it was modified through Romantic ideas about organic energy:

Free should the scholar be, —free and brave. Free even to the definition of freedom, "without any hindrance that does not arise out of his own constitution."8

Not the least significant feature of Emerson's lecture was the public context in which it was delivered. Three months earlier, in mid-May, the United States had begun its long plunge into the depression that historians call the "Panic of 1837," an economic crisis that would last—like our own recent one—for seven years. Reflecting on that "emphatic and universal calamity" in his May *Journal*, Emerson thought it presented him with a singular opportunity: to expose what he saw as the true "bankruptcy" of the nation. Now that "the boasted world [of getting and spending] had come to nothing" (*Journal*, May 21, 1837), Emerson decided "to inquire if the Ideal might not be tried" as an inspiration to a "generation . . . bankrupt of principles and hope." That inquiry became his famous lecture of August 29, "The American Scholar."

Emerson was exaggerating when he suggested that the "Commodity" world of the United States had "come to nothing" in the financial collapse. More exactly, the crash had exposed yet again one of the more dismal laws driving the country's political economy. So Emerson moved to make Transcendental capital from the legacy of those quotidian laws. He wanted Americans to embrace what he called in a later lecture the "Spiritual Laws" (1841) of the sovereign individual. The custodian of those Higher Laws is Emerson's American Scholar, whose mission is

to "master"—that is Emerson's key word—the brute circumstances of daily life. As he majestically declares, "The true scholar [is] the only true master."

He learns that he who has mastered any law in his private thoughts, is master to that extent of all men whose language he speaks, and of all into whose language his own can be translated.<sup>9</sup>

For Emerson, the Panic of 1837 was the recurrent legacy of the Commodity masters of America. Yet that commercial power was for Emerson not masterful but anarchic. To escape subjection to its anarchs, one must first recognize how "Nature" is "the first in importance of the influences" upon the American Scholar, or Man Thinking. This is the lecture's initial move.

And the question is definitely *how* rather than *why*, for Emerson's Nature is a force field of dynamic action. It is not a congeries of empirical objects—"rocks and stones and trees"—but an ideal system obeying "a law which is also [the] law of the human mind" that works to discover its law. Man Thinking turns a reciprocal attention to the arresting pressure of the impinging material world. In that act of attention, the American Scholar and Nature are reciprocal agents, "beholding and beholden."

To the young mind, every thing is individual, stands by itself. By and by, it finds how to join two things, and see in them one nature; then three, then three thousand; and so, tyrannized over by its own unifying instinct, it goes on tying things together, diminishing anomalies, discovering roots running under ground, whereby contrary and remote things cohere, and flower out from one stem.<sup>10</sup>

In the interchange with Nature, Emersonian Man discovers the "principle" that gives him mastery. It is the idea of an implicate order realized as Idea before it ever need be or even could be realized in fact. For Emerson, Man Thinking is, like Great Creating Nature, "a becoming creator." "Every day, the sun; and after sunset, Night and her stars. Ever the wind blows, ever the grass grows." Those are, for "The American Scholar," the very first examples of Emersonian Nature. They are perfectly chosen because they *define* Nature, shaping it as an idea of a comprehensive and recurrent order. The natural world is for Emerson the manifestation of its subsisting Idea.

Emerson will spend a lifetime generating further figures to show how "[Nature's] laws are the laws of his own mind." But his Ideal conviction concealed a real problem. Once Man Thinking had seized the Idea, what need of an empirical pursuit? Might Man Thinking—*Emerson* Thinking—actually not know his own Mind, or for that matter, Nature? Indeed, might the Mind's sovereign Idea rather be—this was Poe's darkly comic thought—the pursuit of its illusions, of *how* it is "a becoming creator" of illusions? These are the kinds of question lying behind the persistent judgments initially brought against Emerson by Poe and reinforced by later readers: that he made a false homology between the Human Condition and the State of Nature.

Poe was Emerson's Blakean Contrary—far less a critic of his limitations than, like Melville, the dark interpreter of his genius. The best critic of Emerson is his best and most assiduous student, Henry David Thoreau. We now see pretty clearly how Thoreau moved "gradually, partially, and self-conflictedly beyond the program" of Emersonian Transcendentalism and the scholarly ideas it promoted:

Thoreau became increasingly interested in defining nature's structure, both spiritual and material, for its own sake, as against how nature might subserve humanity, which was Emerson's primary consideration.<sup>12</sup>

In the late *Journals* and the so-called Late Natural History Writings like "The Dispersion of Seeds" and *Wild Fruits*, we track Thoreau's painstaking efforts to put acts of attention well before acts of invention—or the human encounter with the material world before reflection on the Order of that world.<sup>13</sup>

And I say "painstaking" because in Thoreau we read the story of a person learning how to learn by submitting to a far more demanding teacher than Emerson. It was a teacher who, Thoreau came to understand, spoke an entirely foreign language. Bradley P. Dean called it "the language of trees" because Dean focused on a dialect that Thoreau came to study more closely than its other dialects: for instance, the language of fauna, of stones, of water. But Thoreau was well acquainted with Nature's entire family of languages, and in his *Walden* experiment he proved so arrested by those languages that one or another of Nature's native speakers would sometimes even address him directly.

For example, Walden Pond itself, according to Thoreau, speaks many dialects. All are in communion with the dialects of the other ponds in Walden's

neighborhood. Fishermen nearby, Thoreau reports, "say that the 'thundering of the pond' scares the fishes and prevents their biting," but neither they nor Thoreau are certain what the ponds are saying in their winter words, or even if it is the ponds and not some other communicant who are speaking to the fish. But Thoreau senses that he is fronting, is immersed in, a scene of complex communicative action that he doesn't understand. "The pond does not thunder every evening, and I cannot tell when to expect its thundering; but though I may perceive no difference in the weather, it does." <sup>14</sup>

Nature, so to speak, speaks a different language, or perhaps many different dialects of a single language system. So foreign is this family of languages to human persons, however, that a true and useful acquaintance only begins when you realize you will never master any of them. Consider Thoreau's famous encounter with Mount Ktaadn.

Vast, Titanic, inhuman Nature has got him at disadvantage, caught him alone, and pilfers him of some of his divine faculty. She does not smile on him as in the plains. She seems to say sternly, Why came ye here before your time. This ground is not prepared for you. Is it not enough that I smile in the valleys? I have never made this soil for thy feet, this air for thy breathing, these rocks for thy neighbors. I cannot pity nor fondle thee here, but forever relentlessly drive thee hence to where I *am* kind. Why seek me where I have not called thee, and then complain because you find me but a stepmother? Shouldst thou freeze or starve, or shudder thy life away, here is no shrine, nor altar, nor any access to my ear.

Thoreau summons Milton's Satan for a language and fit reply to the obdurate language of Ktaadn. And Thoreau isn't quoting Milton, he is translating the passage to an alienated context and occasion. The translation signals a scholarly attitude toward Nature that is decisively different from Emerson's.

Thoreau can translate Milton because Milton and Thoreau speak the same language. Thoreau cannot translate Ktaadn because Ktaadn has no knowable language. So Ktaadn's words here are not Thoreau's translation, they are his commentary on his encounter with the natural world. Translation is out of the question because there is no Book of Nature. Ktaadn's words are thus Thoreau's representation of an alien encounter, and Milton is invoked to annotate the scene.

The Emersonian scholar—Man Thinking—proves his "mastery" when he realizes the correspondence between Mind and Nature. As *Walden* shows, Man Thinking is equally the pivot point of Thoreau's work. But Thoreau's figural flights keep colliding with the intransigence of minute and material particulars. The inorganic world—Ktaadn, the ponds of *Walden*, seasonal weather, the "clay and sand . . . flowing down the sides of a deep cut on the railroad"—all are Thoreau's brute and eloquent neighbors whose grace is to overthrow the "Higher Laws" of the Transcendental program. In Emerson, Man Thinking takes communion with a mysterious Nature and discovers the mastery of metaphoric translation. But in Thoreau communion leads finally to translational and metaphoric breakdown. He is pleading for an Adamic language through "which all things and events speak without metaphor." <sup>16</sup>

The distant rumbling of wagons over bridges . . . the baying of dogs . . . the trump of bullfrogs . . . vainly bellowing *troonk* from time to time, and pausing for a reply . . . wild cockerels crow[ing] on the trees, clear and shrill for miles over the resounding earth . . . sturdy pitch-pines rubbing and creaking against the shingles . . . a scuttle or a blind blown off in the gale—a pine tree snapped off or torn up by the roots . . . . <sup>17</sup>

So education for Thoreau is not a progress in knowledge but a repetition of primary encounters. The cycle of the seasons and the diurnal round locate his passage through "Chaos and ancient Night" on his journey to the wondrous, obdurate earth. The ice on Walden Pond melts in a very particular pattern every year, but each year the pattern unfolds so uniquely that each year it has to be rediscovered:

In 1845 Walden was first completely open on the 1st of April; in '46, on the 25th of March; in '47, the 8th of April; in '51, the 28th of March;

in '52, the 18th of April; in '53, the 23rd of March; in '54, about the 7th of April.  $^{18}$ 

Such a cunning move, to climax his statistical record with that word "about." Besides, Thoreau does not time-stamp this record by minute and hour. And what *exactly* does it mean to say, or to think, that the pond was "first completely open"?

Or what of those red squirrels he will soon meet—creatures who, "At the approach of spring" each year, would

[get] under my house two at a time, directly under my feet as I sat reading or writing, and kept up the queerest chuckling and chirruping and vocal pirouetting and gurgling sounds that ever were heard; and when I stamped they only chirruped the louder, as if past all fear and respect in their mad pranks, defying humanity to stop them. No, you don't—chickaree—chickaree. They were wholly deaf to my arguments, or failed to perceive their force, and fell into a strain of invective that was irresistible.<sup>19</sup>

That is Thoreau making a reprise on one of his most celebrated reports in all of *Walden*: his encounter with the loon in "Brute Neighbors." When he glosses the loon's cry as a derisory laugh, the figure is itself derisory, marking a scene of contact where misunderstanding appears all on one side (Thoreau's). So too with the red squirrels, who are, Thoreau imagines, too busy and preoccupied to pay any notice to their noisy neighbor upstairs. All he registers is a scene of existential repletion, as remote in its way as stern Ktaadn. "While he was thinking one thing in his brain," Thoreau writes of the loon, "I was endeavoring to divine his thought in mine." With the verb "divine," Thoreau registers the sublunar divinity of his Brute Neighbors, who mock at and tease out the deficiency of his understanding. In the poverty of his report he also reports how the implicate order of the loon's world will always remain to be discovered.

Where Emerson proposes "going down into the secrets of his own mind," Thoreau's catalog of particulars is outward bound to "the necessity of being forever on the alert": "Instead of no path to the front-yard gate in the Great Snow—no gate—no front-yard—and no path to the civilized world."<sup>21</sup>

That out-of-bounds thought climaxes the chapter appropriately devoted to "Sounds," where Thoreau invokes an order of communication that dispenses with semantics, syntax, and the cognitions of Man Thinking. But the decisive anti-Transcendentalist move is made in the paired chapters "Higher Laws" and "Brute Neighbors." Explicitly invoking Emerson's essay "Spiritual Laws" (1841), where Emerson argues that "a higher law . . . regulates events," Thoreau's study of these "Higher Laws" turns out a wrestling match with his Emersonian angel. The struggle makes him realize that "There is unquestionably this instinct in me which belongs to the lower orders of creation."

The uncertainties climax in the chapter's final paragraph, where Thoreau tells the story of John Farmer. Like Thoreau in his prose, John Farmer struggles to realize his desire "to recreate his intellectual man," to find his sovereign Emersonian way. But John Farmer's high hopes come to an uncertain end:

A voice said to him—Why do you stay here and live this mean moiling life, when a glorious existence is possible for you? Those same stars twinkle over other fields than these.—But how to come out of this condition and actually migrate thither? All that he could think of was to practise some new austerity, to let his mind descend into his body and redeem it, and treat himself with ever increasing respect.<sup>23</sup>

The investigation of "Higher Laws" ends in this disturbed finale, where the impulse to redeem the brute body is thrown into question. The move from "Higher Laws" to "Brute Neighbors" signals a sharp course reversal in the quest romance of *Walden*.<sup>24</sup>

Redemption, it turns out, is not a descent from above. The chapter opens when a certain Poet unexpectedly arrives to invite Thoreau—who calls himself "Hermit"—to leave his reflective isolation and come "a-fishing." The invitation sets Hermit thinking once again on higher and lower things: "Shall I go to heaven or a-fishing?" he wonders. When he decides against heaven and for fishing, the event delivers him from new austerities to the wonders of the imbruted world: "The mice which haunted my house"; "A phoebe . . . a robin . . . the partridge [leading] her brood past my windows."

These brief encounters draw him out further and in deeper, through the chaos and ancient night of the embattled ants to the "demoniac" loon. A less extravagant

person than Thoreau might have climaxed his sojourn among the brutes with that famous encounter. But the episode of the loon is actually anticlimactic, for "Brute Neighbors" has one more paragraph of brutish revelation. Once again "on the alert," Thoreau "watch[es] the ducks cunningly tack and veer and hold the middle of the pond, far from the sportsman." Wise ducks, Thoreau is thinking. But the thought is quickly trumped when he thinks again that these are "tricks which they will have less need to practice in Louisiana bayous." Beyond these thoughts of Man Thinking lie the astonishing wisdom of the ducks. What depths of knowledge do they possess that they understand so well how to manage the shifting circumstances of their migrating lives! If hunters are everywhere, Walden Pond and a Louisiana bayou are worlds elsewhere, and so are the hunters, and so are the ducks. Besides, some hunters are just going fishing.

Thoreau marks his decision to go fishing with a memorandum: "Mem. There never is but one opportunity of a kind."<sup>27</sup> The apothegm has the form of generalization or law, but its focus is entirely on differentials and variants. Opportunities are one of a kind, and so are experiences and all the singularities that comprise them.

Thoreau's studies of Nature kept drawing him toward what Alfred Jarry would soon call a "science of exceptions." Today we may be surprised to recognize Jarry's pataphysical science as the shaping spirit of environmental studies. Listen to Barry Lopez: "The world of variables . . . is [so] astonishingly complex [that it] seems a reflection of that organization of energy that quantum mechanics predicts for the particles that compose an atom." An "evaluation . . . of a stretch of land," Lopez observes, "no matter how profound or accurate," will always seem "inadequate," for "The land retains an identity of its own, still deeper and more subtle than we can know" (228). So too for all the land's creatures, flora and fauna, where knowledge and power abide beyond the range of our knowledge and power, if not beyond the range of our attention. Of the ways of the polar bear, Lopez remarks, "No matter how long you watch, you will not see all it can do" (96). And so a warning goes forth across the whole of his book: "The imposed view, however innocent, always obscures" (176). This is Lopez channeling Thoreau, man on the alert, not Emerson, the man who thought thinking was "mastery".

Arctic Dreams is thus an extended reflection on disciplines of knowledge, on Truth and Method. Its recurrent message is "no country, finally, is just like another.

The generalities are abstractions" (259). But more than that, Lopez discovers that no country, finally, is just like itself. Arctic natives who are constantly dealing with their elusive, volatile, and shape-shifting world possess that understanding. They practice a science that is "less formal" than traditional western science but "not necessarily less rigorous" on that account. It is a science of exceptions that is "reluctan[t] to extrapolate from the individual" (269n).

They know they can be very precise about what they do, but that does not guarantee that they will be accurate. They know the behavior of an individual animal may differ strikingly from the generally recognized behavior of the species, and that the same species may behave quite differently from place to place, from year to year. (269)

So when a "man from Anaktuvuk Pass [was asked] a question about what he did when he visited a new place," he responded: "'I listen.' That's all. I listen, he meant, to what the land is saying . . . before I, myself, ever speak a word" (257).

Here the land and its brute individuals cast such a cold eye on Man Thinking that a scholar like myself receives a shock of recognition. *Arctic Dreams* is an allegory for a scholar's life where our Emersonian commitments to "mastery" make a further commitment to meet their master. We are to follow "The Course of a Particular" and "the cry of leaves that do not transcend themselves." We are to cultivate "a mind of winter" and zero-degree encounters with our culture, its Umwelt, its material documents.

Here is what that mind of winter looks like:

A tundra botanist once described to me her patient disassembly of a cluster of plants on a tussock, a tundra mound about 18 inches high and a foot or so across. She separated live from dead plant tissue and noted the number and kind of the many species of plants. She examined the insects and husks of berries, down to bits of things nearly too slight to see or to hold without crushing. The process took hours, and her concentration and sense of passing time became fixed at that scale.

Then "at one point" her fixed attention broke and "she remembered looking up... at the tundra that rolled away in a hundred thousand tussocks toward the horizon" (259–60). The enormity of her studies came so sharply into focus that

she could not resume her work, "not for long minutes." When she left the tundra for home, we know the stories she would tell and how she would tell them. If she wrote them in a book it would be called *Arctic Dreams*.

That botanist was a scholar who understood both the wonder and the difficulty of her vocation. Only a student as implacable as that land and its little tussocks has any chance of approaching the land's secrets. Mastery is out of the question. Few of us have been to the Arctic, much less submitted to its rigorous demands. Yet not a few will understand that botanist and the commitment to truth she represents. The subjects of the commitment are a secondary matter. No one learns to prepare good meals, or even some favorite dishes, without a study and care that may well turn to a lifelong endeavor. There are baseball fans who exhibit that botanist's habit of mind, as do many gardeners, carpenters, musicians—professional and amateur. Lopez fashioned his Arctic botanist to an image I am especially familiar with. She recalls the scholar focused for hours or days on some book, some document, some passage or word that opens to a formidable horizon. Tennyson glimpsed "all experience" of this kind as "an arch where through / Gleams that untraveled world whose margin fades / For ever and for ever when I move."31 If you travel there you pledge allegiance to truth: to accuracy, thoroughness, and all their stipulated costs. As a matter of social practice, when that scholar leaves the tundra to join her neighbors in the human world, her commitment to truth is called troth, which is every bit as demanding.

We humans will climb Mount Ktaadn and take our measure of her measure. We will explore the poles, go to the moon or Jupiter, and imagine—if only in our children's toys—traveling, like Buzz Lightyear, "to infinity and beyond." But our measures will fall short, as ancient wisdom has always known. That truth gets disclosed yet again—will we never learn?—by physicists and bioastronomers who reflect on these human endeavors and the second law of thermodynamics. Exploring Nature, then, we may find ourselves and take our Socratic measure. Or not.

Arctic exploration and the quest for a Northwest Passage have furnished an archive of documents of "inestimable" value because the documents "expose in startling ways the complacency of our thoughts about land in general." Arctic land is important because it "is irritatingly and uncharacteristically uncooperative" (12), so Lopez offers chastening examples of how to read the accounts of others who were

smitten with Arctic dreams: Martin Frobisher, Robert Peary, Knud Rasmussen, Sir John Franklin, British Petroleum, Exxon Mobile. But if the work is important for reading the records of wilderness encounter, it has an even greater relevance for what Walter Benjamin called the "documents of civilization." *Arctic Dreams* was written to wake up its "temperate-zone" neighbors—that's to say, we who are accustomed to imagine the world as a place "where the sun actually sets on a summer evening, where cicadas give way in the twilight to crickets, and people sit on porches—none of which happens in the Arctic." *Arctic Dreams* brings enlightenment to those kinds of temperate illusion, which our anthropocene minds have recently begun to see—"Thank Somebody," as Swinburne liked to say—as "irritatingly and uncharacteristically uncooperative" (12).

I have an Arctic Dream that educators and educated citizens might take that tundra botanist's conscience for their monitor. Here are a few stories about why I have that dream.

When Megyn Kelley of Fox News interviewed Dick Cheney on June 18, 2014, she began by asking him to respond to the following passage from a recent article in the *Washington Post* by Paul Waldman:

"There is not a single person in America who has been more wrong and more shamelessly dishonest on the topic of Iraq than Dick Cheney, and now as the cascade of misery and death and chaos, he did so much to unleash raises anew, Mr. Cheney has the unadulterated gall to come before the country and tell us that it's all someone else's fault." The suggestion is that you caused this mess, Mr. Vice President. What say you?

Mr. Cheney replied: "Well, obviously I disagree." Overriding any distinction between matters of fact and matters of opinion, he then remarked: "I think we went into Iraq for very good reasons." He added that President Obama was responsible for destroying what he called a "very positive" situation that he and his people had created in Iraq.

Kelley then pressed him further:

In your op-ed, you write as follows: "Rarely has a US president been so wrong about so much at the expense of so many." But time and time again, history has proven that you got it wrong as well in Iraq, sir. You said there were no doubts Saddam Hussein had weapons of mass destruction. You said we would be greeted as liberators. You said the Iraq insurgency was in the last throes back in 2005. And you said that after our intervention, extremists would have to, quote, "rethink their strategy of Jihad." Now with almost a trillion dollars spent there, with 4,500 American lives lost there, what do you say to those who say, you were so wrong about so much at the expense of so many?

Mr. Cheney again replied: "I just fundamentally disagree, Megyn. You've got to go back and look at the track record. We inherited a situation where there was no doubt in anybody's mind about the extent of Saddam's involvement in weapons of mass destruction."

"I just fundamentally disagree." The phrase is disturbing because its purpose is to blur the distinction between fact and opinion. In the interview, not all the relevant facts—not even perhaps the worst—were brought forward by Ms. Kelley. Well over 100,000 Iraqi civilians were killed between 2003 and 2008. And to say that "there was no doubt in anybody's mind about the extent of Saddam's involvement in WMDs" is definitely inaccurate—or to put it more truthfully, definitely not true. Many people at the time, as the vice president knew, expressed their doubts often and publicly, and some—the United Nations, most notably—actually tried to verify what was or wasn't true about the American administration's charges. But the administration did not allow Hans Blix's inspection team to make its report in time to prevent the ensuing disaster.

Because Vice President Cheney took a blithe attitude to matters of fact, he could take a purpose-driven approach to matters of consequence, matters of life and death. He practiced, and continues to practice, what Hannah Arendt called "defactualization."<sup>32</sup> He would have been wiser had he read *Arctic Dreams* and took seriously one of Barry Lopez's running themes: "The imposed view, however innocent, always obscures" (176). Not even the vice president would argue that his views were innocently imposed.

But matters of fact, our brute neighbors, can be dismissed from attention in a very different way. This other way became widespread when humanities scholarship shifted from its traditional grounding in history and material culture toward literary philosophy and interpretive theory. For my generation, the name Paul De Man would be totemic for that shift. Listen to what he had to say about literary studies in 1970 as the Theory Movement in humanities was in serious lift-off: "There is no room . . . for notions of accuracy and identity in the shifting world of interpretation." Or as he remarked a few years earlier in an essay on the poetry of Keats, we must not think, when studying the poems, that they have any "positive existence." History was not exactly "bunk" for De Man, as a famous American entrepreneur once said, but accuracy and matters of fact were no longer "notions" that the humanist scholar had room for.

This retreat from an empirical encounter with our documentary archive—a retreat from philology to theory—seems a perverse move for anyone charged with monitoring and preserving our cultural record. Because works of imagination fairly demand a science of exceptions, we recognize how and why the imposed theoretical view, however, innocent, always obscures. The Book of Nature is difficult and mysterious, but so are the Books of Men. The records of positive actions and singular events comprise both Natural History and Human History, but the two are very different. Nature is mysterious because it is absolute, human records are mysterious because they're not. Fallible human beings—scientists, as we now say —study the Book of Nature and make both wonderful discoveries and terrible mistakes. But the Book of Nature, their subject, is itself perfect. Nature does not change, it simply mutates, as the humanly devastated State of Nature around Chernobyl reminds us. Or the melting of the polar ice sheets.

Fallible human beings study the books and records that were made by other fallible human beings. Data are records and they are as prone to error as any other record. Worse yet, all these imperfect records are always fallibly preserved and imperfectly passed along to other fallible beings. Skeptics might call that a house built on sand. It's actually more like a house resting on the backs of those famous turtles that go, as we say, all the way down. You need a lot of sympathy when you practice the human sciences. For the humanist, it's human beings—natural, mortal—all the way down through our "Chaos and ancient night."

Socrates proposed that knowledge should be understood and pursued as complete self-reflection. That was an impossible proposal, as he knew. He thought he was wise because he knew he knew nothing for certain. We call his knowledge program the Hellenic vision of truth. In the West we know its complement as the (equally impossible) Hebrew or Christian or Islamic vision. These are the visions

of the People of the Book, who practice an equally impossible task. The Bible is our normative book for studying human history. Why? Because as a book of truth it is also an imperfect book, full of error and evil: what Poe called "the good and the bad and the worst and the best."

But like the hard sciences, the human sciences have systematic methods, and you can see why. Humanists need as much rigor and system as we can muster because everything we study, including ourselves, is so unreliable. The Book of Nature is rock-solid. The Word of God is turtles all the way down. So are the humanities, which have to be prosecuted as an art: that is, less under the rule of theory or idea, and more as a regimen of careful practice. As one of our greatest humanities scholars once observed, humanistic study is like fishing. You only become good at it by patient and repeated experience, and by scrupulous attention to what, where, how, when, and why you're doing it. Perhaps that's even what Jesus had in mind when he urged his students, his disciples, to become fishers of men.

Scrupulous attention to the specific and "positive existence" of the human record, past as well as ongoing present. Mark Twain called all of that *Life on the Mississippi*. You have to know the land, the river, the seasonal shifts, the weather conditions, and all their unpredictable history. And like Twain's river pilots, scholars have to know it at first hand, in actual contact with the documentary record. And you have to know it repeatedly. Finally, you also have to know it through the firsthand knowledge of others whom you know to have long-standing experiential credentials. Those are the people you go fishing with. Those are the people whose humanities scholarship makes a difference. In the shifting world of the human sciences, accuracy is imperative, as much as you can manage. We can't make reliable judgments without being confident that we have accurate information—that's to say, reports that mean to be candid, honest, and as thorough as possible. The best we can say of Vice President Cheney is that he was optimistic in his reports. That seems the truth. The additional truth is that he was dishonest—and, alas, still is.

People with a commitment to knowledge and truth—people from every quarter of the social and political landscape—recognize dishonesty. The recognition is nonpartisan and interdisciplinary, a function of a common, if differently shaped, vocation to truth. But to give that vocation force you need more than the commitment of a Sovereign Individual—as Emerson, more than

Thoreau, understood. The scholar has a pastoral office to fulfill. It is not all theology and shop talk.

I like to think that Paul De Man would have been appalled at the vice president's cavalier attitude toward accuracy and factual truth.<sup>35</sup> But De Man's skepticism about human knowledge—about the positive, factual record—was, if not dishonest, misguided. It set an unreliably narrow model for human studies. I know a better model, or at least a story about a better model. It's a story about another scholar—a greater scholar than De Man, in my judgment, though one far less famous (or infamous). He was an assistant professor of Greek and Latin at Harvard, his name was Milman Parry, and he died fairly young—at thirty-three. In 1934, the year before he died, he delivered an address to the Board of Overseers of Harvard College. Though it bore an unprepossessing title, "The Historical Method in Literary Criticism," Parry delivered it because he was troubled by a Crisis in Humanities. <sup>36</sup>

Even in 1934 there was a Crisis in the Humanities? Alas, yes, as there was in 1837 when Emerson himself engaged the crisis in a lecture to the same board. In truth, I think the humanities have been in a regular state of crisis at least since the eighteenth century. Crisis has become the modern fate of humane studies, whose vocation is the pursuit of social, historical, and personal truth and the preservation of the record of those pursuits. These are obligations that humanists undertake knowing they are impossible to fulfill. The historical record that comes down to us is a small fractional residue of the human past, and even that fraction is riven with holes and fragmentary, disfeatured remains. And as for the data glut of the present, it is being mined but not mastered. Data mining, we may want to remember, was what led Mr. Cheney and his accomplices to their misjudgment about Saddam Hussein and WMDs.

Milman Parry did not know about Big Data, but he didn't have to. His little data was trouble enough for someone interested in fishing for the truth. And that is what interested him and what he made the subject of his lecture. As with Emerson one hundred years before, the important context of Parry's lecture is signaled by its date, 1934, when "propaganda . . . social changes and confusion" were taking such hold of bewildered people throughout Europe and America. Stalin had assumed control of the Soviets in 1923, Hitler of the Weimar Republic in 1933, and a freewheeling American capitalism had plunged the United States into

a tormented social condition, worse even than the Panic of 1837. Parry reflected on that situation:

The chief emotional ideas to which men seem to be turning at present ... are those of nationality—for which they exploit race—and class. . . . Anyone who has followed the history of the use of propaganda for political purposes, with its extraordinary development of intensity and technique in the past fifty years [recognizes how] those who were directing that propaganda expressed their lack of concern, or even contempt, for what actually was so, or actually had been so.

Parry went on quietly to suggest that "the European humanistic tradition" had something important to contribute to these benighted societies. He was not thinking of what Poe called "the glory that was Greece, and the grandeur that was Rome." On the contrary, he was thinking about humanist scholars who spend their lives trying to give accurate reports about such worlds, so dead and far gone from the modern present, as he was reminding the Harvard overseers. He was also fully aware how insignificant—how *pedantic*—such academic pursuits often appear to living people enspelled by propagandistic dreams of national glory and exceptional virtue.

Parry's heroes are not Achilles or Hector, not even Socrates or Plato. They are far more minor and modest. They are people who believe "that there is nothing at the same time finer and more practical than the truth," and who will spend their days acting on that belief. You want to know what such days are like? They are days spent on a vast tundra studying a passage in a book few people read or perhaps have ever heard of—perhaps a book in a dead language—trying to say something accurate and truthful about it. I knew a scholar who set all his other research work aside for months trying to write a footnote that told the truth about a sentence in a letter by the poet Tennyson. Whether the document being searched has ideas with current social relevance is, for these adepts of truth, beside the point. Indeed, apparent irrelevance might be exactly to the point for a people—that would be for the company I keep—surrounded by the propaganda and confusion of our fiercely, just-in-time present.

What, then, is the point? Simply, in Parry's words, "that there is nothing at the same time finer and more practical than the truth." That would be the truth

as such. Accuracy and truth are not well characterized as "notions" that we have—De Man's characterization. Better to know them as commitments that we make. The strength of a commitment—and therefore its practicality—rests in how out far and how in deep it goes. The turtles of truth go all the way down to where there is, we trust, something we will never have and never know: the truth, the whole truth, and nothing but the truth.

Scholars pledge allegiance to that impossible truth. Making the pledge is one of the two public functions of the humanist scholar. The other—it is closely related—is the obligation to protect human memory from neglect and erasure—as much of it as possible.<sup>37</sup> Both commitments resist the pressure of the consuming present, where illusions of sovereignty are fashioned from truthiness and memories of convenience.

The quotidian realm does not cultivate habits of accuracy, thoroughness, and candor, and it may even—as Milman Parry remarked—hold them in contempt. In the fugitive and cloistered world of the scholar, however, these are predominant values. They monitor all quests for sovereignty and power because they recognize the seductive uncertainty of higher laws and the uncanny intransigence of brute fact. It is difficult to tell the truth, the whole truth, and nothing but the truth about a Tennyson letter. Yet to attempt it is both sobering and superb. Even the most insignificant object rests in a vast implicate order.

Before the scholar's art comes the slipping-down life of the world. To uphold that world's dubious honor asks a mind of winter and a faithfulness unto all generations. What another poet devoted to loss called "a light to lesson ages and voluptuous princes."

## Notes

- 1. See the discussion of Milman Parry below.
- For an important context, see Application of Big Data for National Security: A
   Practitioner's Guide to Emerging Technologies, ed. Babak Akhgar, Gregory Saathoff,
   Hamid Arabnia, Richard Hill, Andrew Staniforth, and Petra Saskia Bayerl (Oxford,
   UK: Butterworth-Heinemann, 2015), and in particular chapter 6, Bethany
   Nowviskie and Gregory Saathoff, "Interpretation and Insider Threat: Rereading

- the Anthrax Mailings of 2001 through a 'Big Data' Lens," 55–67. Preprint version available at http://libra.virginia.edu/catalog/libra-oa:8347.
- Theodor Adorno and Max Horkheimer, Dialectic of Enlightenment, trans. John Cumming (New York: Herder and Herder, 1972). Dialectic of Enlightenment was first published in 1944 under the title Philosophische Fragmente, and again in 1947, revised, as Dialektik der Aufklärung.
- I am recalling Paul Connerton's How Modernity Forgets (Cambridge, UK: Cambridge University Press, 2009), 32.
- Thomas Hardy, "The Convergence of the Twain," 22–24. The Variorum Edition of the Complete Poems of Thomas Hardy, ed. James Gibson (London: Macmillan, 1979), 307.
- Ralph Waldo Emerson, Selected Journals, 1820–1842, ed. Lawrence Rosenwald (New York: Library of America, 2010).
- Ralph Waldo Emerson, Essays and Lectures, ed. Joel Porte (New York: Library of America, 1983).
- 8. This "definition" actually comes from Kant, and while the quotation marks suggest Emerson is quoting, he's actually synthesizing passages from *The Critique of Pure Reason* and *The Philosophy of Right*. This is what the lecture just called "going down into the secrets of his own mind," where Thinking Man "descend[s] into the secrets of all minds" and even into the secrets of Nature itself. Before Kant was, Emerson is saying, I AM.
- 9. Emerson, "The American Scholar," in Essays and Lectures, 64.
- 10. Emerson, "The American Scholar," 55.
- 11. Emerson, "The American Scholar," 55.
- Lawrence Buell, "Thoreau and the Natural Environment," in *The Cambridge Companion to Henry David Thoreau*, ed. Joel Myerson (Cambridge, UK: Cambridge University Press, 1995), 172.
- Henry David Thoreau, Faith in a Seed: The Dispersion of Seeds and Other Late Natural History Writings, ed. Bradley P. Dean (Washington, DC: Island Press/Shearwater Books, 1993), and Wild Fruits, ed. Bradley P. Dean (New York: W. W. Norton, 2000).
- 14. Henry David Thoreau, "Spring," Walden, in A Week on the Concord and Merrimack Rivers, Walden, The Maine Woods, Cape Cod, ed. Robert F. Sayre (New York: Library of America, 1985), 563.
- 15. Thoreau, The Maine Woods, 641.

- 16. Thoreau, "Sounds," in Walden, 411.
- 17. Thoreau, "Sounds," 422, 424.
- 18. Thoreau, "Spring," in Walden, 564.
- 19. Thoreau, "Spring," 569.
- 20. Thoreau, "Brute Neighbors," Walden, 510.
- 21. Thoreau, "Sounds," 424.
- 22. Thoreau, "Higher Laws," in Walden, 493.
- 23. Thoreau, "Higher Laws," 499.
- 24. "Higher Laws" is the most stuttering episode in the book, veering repeatedly between the contradictory instincts of his mortal being.
- 25. Thoreau, "Brute Neighbors," 503.
- 26. Thoreau, "Brute Neighbors," 511.
- 27. Thoreau, "Brute Neighbors," 502.
- 28. Roger Shattuck, introduction to *Exploits and Opinions of Dr. Faustroll, Pataphysician* by Alfred Jarry, trans. Simon Watson Taylor (Boston: Exact Change, 1996), xi.
- 29. Barry Lopez, *Arctic Dreams* (New York: Scribner, 1986), 177. Further citations to *Arctic Dreams* appear in parentheses in the text.
- Wallace Stevens, "The Course of a Particular" Wallace Stevens. Collected Poetry and Prose, ed. Frank Kermode and Joan Richardson (New York: The Library of America, 1997), 460.
- Alfred Tennyson. The Major Works, ed. Adam Roberts (New York: Oxford University Press, 2000), 81
- 32. See Hannah Arendt, "Lying in Politics: Reflections on the Pentagon Papers," New York Review of Books, November 18, 1971.
- 33. Paul De Man, Blindness and Insight: Essays in the Rhetoric of Contemporary Criticism (New York: Oxford University Press, 1971), 110.
- De Man, introduction to Selected Poetry of John Keats (New York: New American Library, 1966), xi.

- 35. In this matter, Evelyn Barish's *The Double Life of Paul De Man* (New York: Liveright, 2014) does give one pause.
- Milman Parry, "The Historical Method in Literary Criticism," Harvard Alumni Bulletin 38 (1936): 778–82. Reprinted in Milman Parry, The Making of Homeric Verse: The Collected Papers of Milman Parry, ed. Adam Parry (Oxford, UK: Clarendon Press, 1971).
- 37. That is the subject of my recent work *A New Republic of Letters: Memory and Scholarship in the Age of Digital Reproduction* (Cambridge, MA: Harvard University Press, 2014).