

Titus Lucretius Carus and “Nature” as Urbane Myth

© 2013, by [Mark Edward Vande Pol](#), all rights reserved

Children’s schoolbooks of early American history virtually all recount how the first explorers of the Western Hemisphere rhapsodized about the unspoiled beauty and vitality of the landscapes they saw. Forests of chestnut and oak were spacious, with open walkways and patchy thickets. Berries were everywhere. The conifers were huge and straight... These reports made their way back to Europe of course, no doubt embellished somewhat in order to gin up financial support for the following very expensive expeditions in search of rumored gold, the Northwest passage, El Dorado, whatever... No less expensive and probably more hazardous were the early settlements, some of which ended in total disaster. Yet these early failures in no way diluted the stories of amazement at the productive and aesthetically pleasing condition of the land.

Once the settlers had established themselves and started to explore, there was no doubt of the bounty the land produced; burgeoning wildlife made that obvious. Yet because of their lack of history in the setting, the transient nature of that bounty could not be known to them. Indians who had hunted and harvested the area for so long had been dying of European crowd diseases since the Spanish first landed 100 years prior (McNeill, 1976). Wildlife had multiplied on the bounty of food that fewer Indians were no longer able to harvest, what biologists call a “trophic cascade” or irruption. Remove the apex hunter and gatherer from the system and the system responds.

From Thoreau to Audubon, this glory of wilderness as inviolate, permanent, and untouched had hardened into something of a theme during the westward expansion of European settlement. Yet this very idea of “Nature” demonstrated a profound ignorance of the way aboriginal peoples had shaped these landscapes for over 10,000 years. The reason Europeans did not notice is was because of the romantic mythos they had adopted before they even arrived.

Not all of what the Indians did was wonderful for wildlife. The vast majority of large animal species had been hunted to extinction soon after the late Pleistocene (Martin & Wright, 1967; Martin and Steadman, 1999; Alroy, 2001). Those that remained were hunted down to small numbers (Kay, 2007). Marine mammals had also slowly declined (Hildebrandt, 2002). In places such as the San Francisco Bay, even estuarine life, such as clams and mussels, had been harvested to the point that people had shifted much of their diets to snails (Hylkema, 2002).

Most American Indian agriculture north of the Rio Grande consisted of shaping the wild to maximize production of edible foods and raw materials, whether acorns, pine nuts, roots, berries, reeds, seeds, or raw materials for fabrication (Anderson, 2005). It was a system so alien to the early explorers that they often failed to recognize such a farm when they saw one (Brown, 2001)¹. There is even evidence of patches of root crops along their trails to supply food they then didn’t have to carry (when white men encountered Indians harvesting along trails, they called them “Diggers”).² Due to that late-Pleistocene overkill, there was little to no animal husbandry, but the tribes did possess the knowledge of how to burn in order to increase production of edible forbs and fresh shoots of brush that are highly desirable to wildlife. It made for better hunting. Not a few European colonists derided the burning process in horror.

¹ For example, Juan Crespi (diarist for Portolá’s 1769 expedition to California) described fields of roses for their beauty, without recognizing them as a crop of rose hips, this while the soldiers were dying of scurvy.

² Personal observations from my own land coupled with William Brewer’s diary, *Up and Down California*. Removing infestations of exotic weeds induced a resurgence of *Dichelostema capitatum* along a documented Zayante tribal trade route. I have been asked to publish on it, but haven’t had the time.

On the other hand, the tribes also practiced more recognizable forms of farming; crops of maize, beans, herbs, and squash. We also have evidence of aquaculture, jetties built to harvest clams on a scale so immense that they had escaped notice until only very recently (Williams, 2006).

In short, pre-Columbian landscapes took their shape according to human preferences, just as they do today. Scientists have published these archaeological findings for years, but somehow that perspective has not changed the way we recognize what we see. Instead, the Nature myth remains entrenched in the American psyche: an unspoiled Eden since destroyed by our sinful pursuit of profit and comfort at the land's expense. It has its uses, but it also has its costs.

From the village blacksmith to US Steel, with timber harvesting and then coal mining to feed the Carnegie beast, or from John Drake to Rockefeller's Standard Oil, the massive ecological consequences of industry were an obvious testament to our fallen Nature. To (supposedly) redress that terrible sin, the tax-exempt "charitable" foundations of those same 19th & 20th Century industrial titans are now sponsoring an enormous (in terms of area), expensive (for everybody else), and ecologically-destructive effort (in my opinion) to "preserve" wildlands toward a condition of which no one is certain, with the modest goal of some 50% of the Continental United States set totally off-limits to human entry, as if that will make it all better. "Nature" can heal anything and go right back to where it was before evil people ruined everything. We teach it in schools. Here's an example from a tony suburb in Silicon Valley:



Mural: Los Gatos High School, California

From the perspective of a foundation donor, it's perfect: 'Get rid of that icky industry (that made me rich). We'll put them to work planting trees, with solar panels (that consume huge amounts of electricity to make, but produce little for not long), and mass transit (that usually runs empty).' Finally, after all that usually wasted energy, we have a post-disturbance landscape of wildflowers that weeds would overrun in a heartbeat, with a few young trees, and NO PEOPLE. Indeed; the only human left (the cute little blonde girl) is standing on asphalt with you, the observer. The message: 'This is your beautiful future, but only if you do what we say: Look, but don't touch!'

The problem with preservation as a “solution” is that *people* made that “Eden” whose ruin we so bewail, and there was a simple reason for whatever degree of success they achieved: **Their lives depended directly upon their land management choices.** Conversely, the success of our mechanized-monoculture-farming-and-international-distribution-systems do not (at least in the short term). It is the industrial shift from away from direct dependency upon land and weather that has alienated people from its feedbacks. Most are now so alienated from the land that they can believe total falsehoods about “the environment” and still survive, (at least in the short term).

To expect a system shaped by people, then rapidly altered in composition, to return to a former glory that never was, if only it remains a “Natural” that never was and has nothing to do with how it was made in the first place, epitomizes this alienation from reality-based feedback. Thousands of square miles of decadent brush, choking forests, and massive conflagrations followed by destructive infestations by hundreds of introduced species now dominate much of the American landscape and promise to get worse. Several once-significant native species are virtually gone due to introduced pathogens (Elm and Chestnut to name but two). Fruit bearing shrubs critical to migratory flyways are being displaced both by uninterrupted succession and exotics. The seeds of native post-disturbance plants have been lying undisturbed for over a hundred years slowly losing their viability. These are locally adapted varieties of species literally going extinct without notice because of this same baseless misanthropic belief in a “Nature” that never was.

These trends do not reverse by wishful thinking. People have been and will continue to exert a powerful influence on the land, whether we are there or not. It is the massive scale of this preservation project intended to restore the system to a presumed condition that is in fact both untested and unknowable that *should* prompt an inquiry seeking the origin of this philosophical premise: “Nature” as separate from people, an idea that binds and blinds so many from recognizing what they see.

It turns out that there is one. I was researching Peter Gay’s monstrous tome, *The Enlightenment: The Rise of Modern Paganism* for the origins of this modern “Nature” paradigm. Central to his thesis is that many of the philosophers of the late 16th to early 19th Centuries had developed an intense interest in writings from the Roman Empire. This was in part out of the desire to repudiate the primacy of Christianity (albeit perhaps not spirituality or Divinity in their entirety). The shabby treatment of Galileo and his like had left a foul taste in the mouth of many a scientist and intellectual. The Protestant Reformation had legitimized rebellion against the Roman Church. There was also a distinct distaste for despotic monarchy (though somewhat less stridently expressed for obvious reasons). In particular, Gay went on at some length about an intense interest in the writings of Titus Lucretius Carus in his lengthy poem, *De Rerum Natura* (*On the Nature of Things*; text in Latin [here](#); public domain English translation [here](#)). These learned men (particularly Bacon³) were sympathetic to Lucretius’ revulsion for the Roman pagan religion of his day (particularly those rituals that entailed the sacrificial slaughter of young women). They were

³ Ref Johnson & Wilson 2006: “Bernardino Telesio (1509-1588) meanwhile advanced a radically empiricist, anti-Aristotelian natural philosophy in *On the Nature of Things According to Proper Principles* (1563). Telesio’s views were influential, having been adopted at the academy of Cosenza; Francis Bacon (1561-1626) referred to Telesio as ‘the first of the moderns.’ Bacon took aim at him, however, in a late essay, *On Principles and Origins According to the Fables of Cupid and Coelum* (c. 1612), rejecting Telesio’s system in favour of the atomistic philosophy of Democritus, citing many passages from Lucretius, but referring to them as the words of Democritus. Bacon there plainly says: ‘to me the philosophy of Democritus seems worthy to be rescued from neglect,’⁸ echoing his earlier remark: “The Democritean doctrine of atoms is either true, or useful for demonstration” (*Meditations on the Nature of Things*, 1604). In the *New Organon* (1620), Bacon frequently recommends Democritus’ method of ‘dissecting nature’ as over against the Aristotelian method of ‘abstraction,’⁹ and he appeals to the atomic doctrine in the later essay *History of the Dense and Rare* (1623), a subject well suited to atomistic treatment.”

sympathetic to his Epicurean pursuit of self-actualization. According to Gay, Lucretius' admirers included: Diderot, Hume, Rousseau, Voltaire, Locke, Hume, and Adam Smith, some of whom shared extensive correspondence with their contemporaries in America such as Franklin and Jefferson. Needless to say, these men were very influential in the development of the kind of linguistic imagery that has shaped American perception ever since.

Even in the 18th Century, new discoveries in the sciences and mathematics were opening vast possibilities in new technologies that promised an era of Man transformed, freed at last from the bounds of monarchy or superstition, free to explore a universe awaiting his conquest within the reach of any individual with the curiosity and discipline to pursue them. All that was required to take science and philosophy to a new level was a crude home laboratory or simple pen and paper. This 'New Man' of course would never express his capabilities unless he was free of despots and their bureaucrats, free to design a new society to express the blessings of liberty in the pursuit of perfecting themselves as individuals.

Columbus' discoveries played into this scenario perfectly. Francis Bacon led the charge as progenitor of this "New World" mythos, a place for a new beginning for those with the dedication, vision, and energy to grasp it, unrestrained by the stifling bonds of Church or royalty, a new civilization of free Men who would tame the "empty continent" (that wasn't).

Ironically, this naiveté among the philosophers of that day was at least partly due to the nascence of the modern urbanity they enjoyed. These gentlemen were among the few Europeans of neither nobility nor clergy to enjoy a lifestyle of intellectual pursuit, alienated from the daily drudgery of laboring in the fields. Farming in Europe had gone on for so long and its history of conquests and mass movements of peoples was so turbulent that there was no memory of their nomadic origins. So it was entirely likely that they would ignore completely the nomads of another continent.

Pressed for time and fully aware of my paltry Latin, I inquired about academic work on Lucretius to see if I could discern from their discussion these underlying premises from which the modern Nature mythos might have evolved. I obtained a summary analysis of Lucretius' poem: *Epicurean Political Philosophy: The De Rerum Natura of Lucretius*, by Dr. James Nichols of Claremont McKenna College. Having read Gay's monstrous diatribe and having noted his failure to present the counter-arguments to the Deistic preferences of the "philosophes," I had my radar on full gain for the all-too-usual academic snow job. Even so, I was so unprepared for what I found, that I almost missed what had been staring me in the face page after page. It was this footnote to the following text (p121) that first caught my eye:

Nichols: "Perhaps most important, the view of the cosmos, or at least of the heavenly bodies, as divine is so widespread among men as to indicate that it answers to some deep-seated need or longing of the human heart.³⁵"

Footnote: ³⁵"Hans Jonas, *The Gnostic Religion*, Boston, 1963, p255: 'The deification of the heavens or of the chief heavenly bodies is for the most natural and universally operative reason an element in all ancient religions (except the Jewish one).'"

My radar went bonkers: "Judaism underlies the scientific reasoning in the Enlightenment? No!" Accordingly, I went back through the book to see if what I suspected was there.

Upon rereading Nichols' essay then sampling the passages of Lucretius' poem, it was absolutely clear to me that much of Lucretius' work had been heavily influenced by the Hebrew Torah, and in particular Genesis 1-6. The parallels were many and considered together equally unmistakable (there is a list of correlations by respective verses as an addendum to this article).

Apparently, in the Enlightenment philosophers' pursuit of an alternative to the Christian Biblical narrative, they had overlooked its underlying theme. In their defense, perhaps Democretan's brilliant atomistic ideas as well as the Epicurean theme of individual self-fulfillment that both infuse Lucretius' poem appealed so strongly to their scientific and Masonic predilections that they simply overlooked the obvious signs of Judaic influence. It is certainly paradoxical that in the process of seeking to repudiate the Biblical account of origins, these "Enlightened" philosophers had adopted those very Biblical foundations without recognition. In their defense, the infusion of the Bible into the context of European culture must have been so complete that it had disappeared into the background when woven into Lucretius poem, which in this case is ironically appropriate: **If a mistaken belief is so broadly accepted that it fades to presumption, then, when events fail to conform to that belief, they will not be recognized as consequences of those false premises.** The belief will go unquestioned and someone or something else will get the credit or the blame. The problem with it is that reality does not "care" about our beliefs.

Visio Ergo Est?

Why is this important? The consequences of this urbane myth are so enormous in scope and are so far along in propelling this nation into a profound political, ecological, and economic disaster, that to ignore it is equivalent to abetting collective suicide. It is that bad, and for a lot of reasons, if only due to the spread of some very destructive pests capable of ruining the ecological and economic usefulness of vast amounts of land. Then there is the outrageous and totally unnecessary cost of **artificially inflated energy prices that benefit no one but a very few and very wealthy stockholders** (not to mention financing people who have said they want to kill us and, upon occasion, do just that).

This 'bounty of unspoiled Nature' in which so many so fervently believe, was at best an ephemeral condition in the settlement of the Western Hemisphere resulting from terrible crowd diseases that killed the bulk of the Indian population that had, up to that point, consumed said bounty as food. It was certainly not the inviolate, enduring, and self-regulating "balance" our ancestors thought they saw. That error of perception is the same reason why scientists missed the signs of enormous agricultural development spanning much of what was once thought to be the "pristine" Amazon jungle (Mann, 2004 & 2008; Hecht 2004), or still deny similar North American potential, despite evidence as massive as **Monk's Mound**. It is a blindness so pervasive and enduring that we cannot see (much less own) the consequences all around us. Adherence to this almost exclusively urban myth has been elevated to a form of spiritual and social righteousness, one that obscures scientific observation among all parties involved. Too often, we are looking for the potential for harm in what people might do without considering the harm done sating our fears in allowing no action at all. It precludes the ability to see the potential for benefit in what can otherwise appear to be intentional physical damage. Even I occasionally fall prey to the idea thinking taking no action on our land to see what happens is benign, even when the facts to the contrary are staring me in the face. Even I get uncomfortable forcing a change in a habitat because of the fear that the things I want to see grow may not make it. After all, it is easier to do nothing in the short run, especially when I have so much else to do. It is easier to avoid blame, than to take the heat for taking a risk. It is easier to assign blame for a willful action than to find fault in just letting things be, pretending not to have influenced an often inevitable and usually predictable outcome.

For good or ill, humans uniquely exert a profound degree of influence at every level of the biological pyramid, but we also possess uniquely the prospective intelligence to bring the landscape to its fullest potential, not just for ourselves, but for plant and wildlife as well. Otherwise left alone, successional processes proceed until a catastrophic event takes out an entire system

allowing it to restart. These singularities include physical events such as a fire, flood, or landslide and population events such as plagues, famines, or overpredation followed by starvation. People see these trends coming and can interrupt them before they proceed to catastrophe, if they take action.

In that respect, people actually tend to stabilize systems that are otherwise subject to wild swings in conditions. Humans set fires or harvest before fuel loads get out of hand to restart annual plants that serve as the primary source of food for insects, birds, and animals. Humans consume foods that would otherwise overpopulate their habitats if they all reproduced. We hunt predators down before they take out the prey base. Yes, we can be destructive, but after 25 years of native plant habitat restoration, I know from personal experience that it does not have to be that way.

Over and over, I've learned more by trying something on our land and seeing what happens than by simply letting it be. My tests are limited in scope, with a far larger 'no action alternative' both not far away and sure to spread if I simply stop. Time and again, actions I have taken even without intent have been rewarded with increased vitality and variety, with only the occasional and all too visible disappointments, which are usually more temporary than my angst would rationally justify. Upon occasion, I have the unique opportunity to see a purely native plant system, one that was initially highly varietal, degenerate over a few years into a relatively unproductive monoculture. Even in managing one of the few purely native post-disturbance plant systems in North America, I have occasionally then been forced to give it a patch a good swift kick to get it to start over. I have no doubt the animals prefer it that way because it makes more forage for them to eat. If I want to see the effects of neglect, I usually have only to look around me.

Time and again I have seen "Natural" disturbances elsewhere (such as a massive wildfire) followed by overcrowded monocultures producing little in the way of wildlife habitat. For example, after the 1988 Yellowstone Fire, many of the forests in the Park are a carpet of very scraggly trees, eight to twenty feet tall, and but a foot or two apart. Like this:



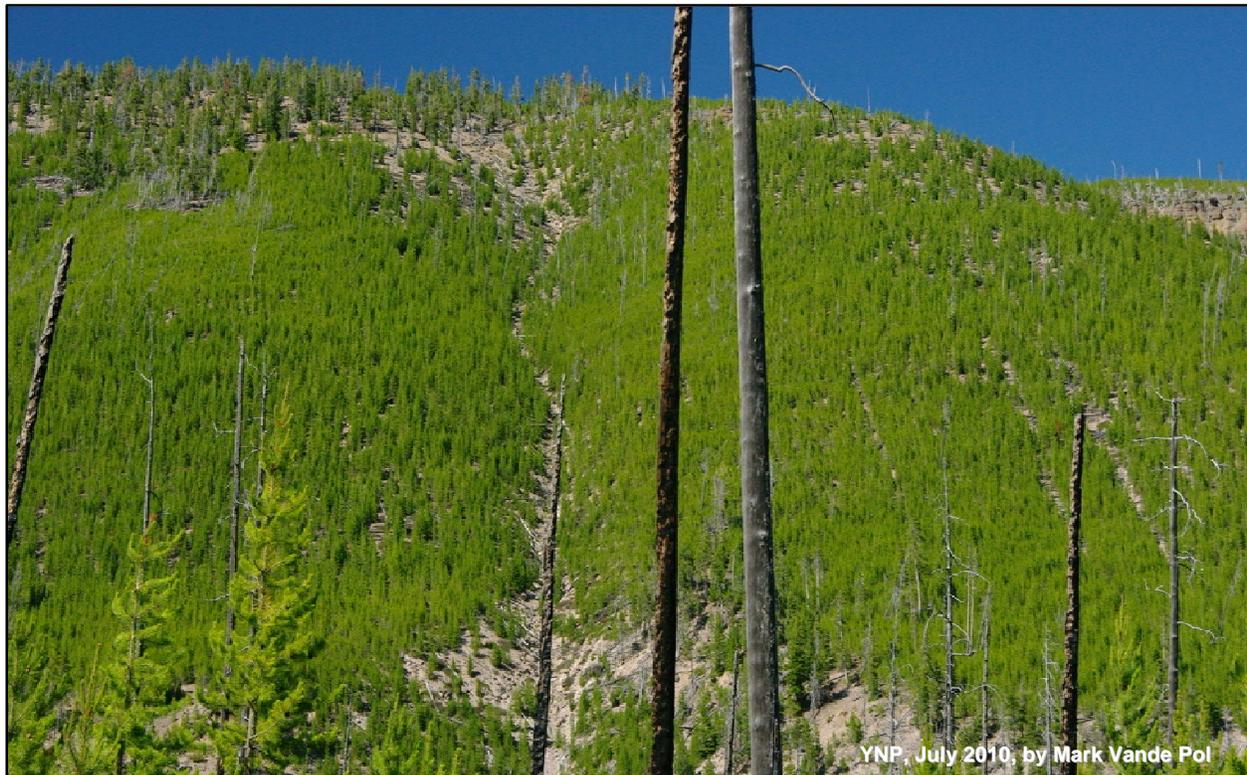
Or this:



Or this:



On a scale like this:



Millions of people drive by these forests virtually all of them thinking that they “recovered” after the fire. Given the above, what do you think? It is a forest all right, but is it healthy? Are those stands too dense for the trees to develop healthy structure? Did you see any leafy annual cover for forage? Did you see berries for birds and bears? Did you see the rilling from erosion down the slope? Did you note that the spacing between trees was tighter in the burned area than up at the top where it did not? Doesn’t that mean that the next burn will be just as bad or worse? Do you see any streamside vegetation in that gully? Are there any aspen?

By the time of the 1988 fire, aspen cover in the Park had declined by 95% from its acreage when it was created, simply because of over-browsing by overpopulated and starving elk. After the fire, the aspen clones put up new shoots from the roots and the starving elk then browsed them down and killed them, in big patches.⁴ They won’t come back because aspen seldom propagate by seed. People would have to plant them. Who would want plant aspens with packs of wolves around?

So the Park Service brought in wolves from Canada to restore “natural regulation” of elk numbers. The problem is, wolves can go outside the Park long enough to get food with which to eat the last big horn sheep, moose, or elk inside the Park without starving because 75% of their food outside the Park is cattle. Who would use grazing to control weeds or improve range conditions with wolves around? Did these geniuses think this through? No, **they were too busy pleasing the wealthy globalists who wanted to “restore Nature” in America**, instantly and without people. Never mind the fact that wolves just grow in population until they run out of food and then revert to cannibalism, just as they did on Coronation Island in Alaska and as they are doing in Denali National Park today where 60% of wolf deaths are due to other wolves (Mech et al., 1998).

Worse, the wolves the government introduced were infected *Echinococcus granulossus* with parasites that produce **hydatid disease**, cysts full of tiny tape worms that can be both difficult to

detect and fatal in both animals and humans. The eggs remain viable in soil for 25 years and can be inhaled in dust. So far, 25% of the moose in the Yellowstone area are infected. What a deal!

“Restoration” of what **was** an anthropogenic native plant landscape after this many years of neglect, what was the food foundation upon which the wildlife system depended, takes time and effort. Even the unburned forests in Yellowstone, while not terribly healthy and definitely overstocked with trees, have more groundcover and better spacing than most of the areas that burned. There is obviously more topsoil (below) than on the rocky surfaces in the photos of burned areas. A simple thinning would work wonders for shrubs and forbs, but who could do that in a National Park? Who *would* do that if they stood a good chance of getting killed?



The aftermath of the fire and wolf introduction just didn't work out as advertised. Why not? The underlying premise of the operation is that Nature is self optimizing, incapable of error, while people are fallen. Humans **MUST** get the blame for whatever seems less than desirable. This is literally an unconscious projection of Eden destroyed by fallen Man. The premise is wrong. People had shaped the landscape for thousands of years according to their preferences: varietal landscapes and spacious forests that produced far more palatable forage for animals than they do today. White explorers preferred it too when they first saw it. The principal Indian tools were fire and harvesting. Yet “Natural” wildfire alone will never replicate such a landscape because people learn to wield fire with the prospective intent to improve forage, especially when their survival is at stake.

Even worse than neglect, the most powerful thing humans do, biologically is to introduce exotic species. Then, when destructive varieties escape our control, what do we do? We throw up our hands and call them “Naturalized”! Between Canada thistle, Dalmatian toadflax, and cheat grass, that is no minor threat, nor is yellow sweet-clover:



Biology may not “care” what we believe, but it does adapt to our behavior according to our beliefs, and the results just might not be what we hoped for. This urban fantasy has been with us for three hundred years, to the point that it is an assumption. That is why how this idea originated is important: It was in the fevered imaginations of a group of intellectual elitists with little if any practical knowledge of the land or accountability for the outcome. In other words, they were the same kind of people running things now. Just like when the Indians had it, **the land is taking its shape according to the beliefs of the people who run it,** people who made Yellowstone into a “park,” the very definition of which is a landscape tailored to please people.

The problem is that, in our many corpulent pleasures associated with modern comforts and entertainment, people these days are ill disposed to do any “tailoring.” We deem that UN-natural, “protect” it as a National Park or UN Global Biodiversity Reserve, blame historical behavior for whatever goes wrong, and assume that Nature can fix anything if we only leave it alone. We can then be blameless, because we didn’t do anything. And after a hundred and fifty years of this madness, it shows, and on a scale almost beyond comprehension.

We do have alternatives you know.

What about a park that taught people how to do restoration work hands-on? What about a park that taught visitors how to make observations or take data on experiments? What about a park that empowered its visitors to report an infestation, or offered awards for pests collected from the field? What about a park in which one could thin a forest and show the results to their kids twenty years later? What about a park where one could use those excess logs to build a cabin in a remote place from which to conduct experiments or do the work?

“Heresy!” we say, “the Park Service should never allow it.” Why not? How could we do worse than the miles of Gambel oak, musk thistle, and cheat grass that make up Mesa Verde National Park after the fires there? A private resort company would have done better simply because they **must** have a product to sell to survive. “Sacrilege!” (a religious epithet), “Making a profit on Nature cannot be allowed, anywhere, not even as an experiment!” And because of the philosophy, we cannot even see the resulting problems, much less the opportunities they present, because this belief system has nothing whatever to do with science. It is about losing an easily extended share in collective ownership, because enforcing doing nothing is something anyone can do. “Owning” something inviolate, is a means to assuage our guilt for the fear of how others might be despoiling the earth at our behest. The problem is that this belief IS despoiling the earth. It is an ethic just as

destructive and pervasive as was “manifest destiny,” or “subdue the earth” pursuant to a popular misunderstanding of the Biblical creation story.

This idea of “Nature” defined as self-optimizing and best kept separate from people is a modern, urban, and self-imposed adaptation of an obviously dysfunctional and destructive 16th Century mythos, generated and maintained by a cadre of wealthy philosophers, men who never lived in the wild, didn’t depend upon it, and didn’t want to. It was that very mythos that ignored the contribution of the aboriginal managers who made this amazing landscape “we discovered.” That ignorance resulted in the wholesale destruction of the plants, animals, and microbial systems built by generations of families, men who burned and hunted, women who gardened and harvested, children who were born, reared, taught, worked, and died shaping these lands.

Yes, we (and I include myself here) are infected with those very same 16th Century ideas to this day and they remain perhaps every bit as destructive, owing to the global scale upon which they are now too often presumptively imposed. We simply **must** relieve ourselves of this albatross, this paralyzing guilt for a fallen Nature, supposedly inviolate and permanent, landscapes we understood in popular literature that probably never operated as believed. We **must** instead assume our rightful place as necessary actors on the grand stage of the earth and take seriously our responsibility for its care. Relieving ourselves of this terrible mythos is more about transforming how we perceive the consequences of what we do, if only to reduce the damage done by ignorance and to make economically possible those remedial projects we wish we had the money to attempt. With all the wealth wasted or deferred in permits, oversight, enforcement, and adjudication (never mind lost production) dedicated to the oft-mistaken belief that preventing action is superior to making a mistake, perhaps those resources are better spent learning how to manage the risks we face and shape the outcomes we hope for, rather than preventing any action at all.

It *is* possible to produce a world that exceeds what the Indians so reluctantly bequeathed. After all, they did it long ago, and with fewer tools than we. Yet it cannot be realized unless we give up this wishful thinking for a lost Eden that never was, and get to work learning *how* to do the best we can with what we have before taking so many irreversible leaps. THAT is what “restoration” should really be about: learning how to manage the systems by living among them, if only on the limited basis we can truly handle. Else why care about native habitat at all? A little more humility, diligence, and responsibility in setting our goals would do us all a lot of good.

Mark Vande Pol has been doing native plant habitat restoration, unpaid, for twenty-five years on a 14-acre parcel that had a two hundred year history of weed infestation, massive loss of topsoil, overgrowth, and abandonment. Today, the Wildergarten is home to 363 active plant species, and has been tested 99.6% native, or better for several years, including tiny annual plants. He has authored two books; one on environmental policy and economics and the other on the Biblical Sabbath for the Land. You can learn more at Wildergarten.com.

Addendum: Biblical Correlation with Lucretius’ *On the Order of Things*

Considering Lucretius’ divergences with the usual pagan descriptions of origins, and the strength of these correlations with the Jewish “Creation” account as cited below, I believe there are Strong’s reasons (sorry... well, no I’m not) to conclude that Lucretius was influenced by those Jewish sources. Upon my inquiry to Dr. Nichols, he informed me that Democritus shared some of these ideas, and therefore the historic pathway by which this curious parallel might have come about will probably remain unknown. In other words, he didn’t want to touch it. Nevertheless, this is not as unlikely an underpinning in Lucretius’ thinking as one might at first presume. During

his time (about 50 BCE) the Jewish enclave in Rome consisted of some 35,000 people. Almost all of them spoke Greek, the *lingua franca* of the eastern half of the Empire. Many were professionals: bankers, traders, artisans, bureaucrats, accountants, and the like, not to mention educators, because so many among the Jewish people were literate. It would be natural that not a few were tutors to the Roman aristocracy. Lucretius had been born to an aristocratic family. Presuming that he had been educated by such a tutor, it would be entirely rational for him to reject Roman paganism for its obviously destructive practices (such as sacrificing one's children to the gods). It would have been natural for him to adopt the ideas of philosophical systems not shared by any other pagan culture. In this case, that alternative would appear to be a conflation of Greek Atomism, Epicurianism, and the Hebrew Torah.

I will list the references to Nichols' work in which I noted Lucretius' 'borrowings' by page number: (Nichols p#) and to the *De Rerum Natura* (by book and verse) with a bit of elaboration on each along with the appropriate citations to Genesis. The links labeled "Strong's" are to the online Brown-Driver-Briggs and Gesenius Hebrew lexicon entries at the BlueLetterBible.org website as indexed by [Strong's numbers](#) (see wretched pun above).

Lucretius, Book II

"Nature, Maker of Things" is the prime mover of all events, the near personification of which is certainly notable (Nichols p74; Lucretius II, vs.1115).

Lucretius had a vision of the earth as having a life cycle, birth, vigor and fullness followed by tiring and wearing out (Lucretius II, vs.1048-end). This parallels the Flood of Noah (Nichols p114; Lucretius: V, vs. 411-415), the destruction of Israel, and the tribulation in Revelation.

Lucretius, Book V

Describes the formation of the world as from chaos to order, a couplet with linguistic parallels to 'evening and morning' (*arab* ע.ר.ב [Strong's 1242](#) and *baqar* ב.ק.ר [Strong's 1239](#)) in Genesis 1 (Nichols p117; Lucretius: V, vs.416-508). Note: this parallel was brought to my attention by a linguist of my acquaintance, Uri Harel, now deceased.

Lucretius, Book V: In the Beginning...

The order of creation was first plants, then animals, and finally man, the same order as is found in Genesis 1, as if all of the rest of nature was made without man present (Nichols p121; Lucretius, V, vs. 783-790).

The first plants race upward from the earth, similar to Gen. 1:11-13, with G_d ordering the earth to "bring forth" plants as extending from the soil. The root is (א.ש.ג, *desha*, [Strong's 1876](#)).

Birds came before animals, in Lucretius, similar to Genesis 20-22 (Nichols 121; Lucretius, V, vs. 800-804).

Like plants, Lucretius' animals came from the earth as in Gen. 1:24-25. The first verb is *totse* (א.צ.י, [Strong's 3318](#)), 'to cause them to come out' (Nichols 121; Lucretius, V, vs. 791-924). In Lucretius, the animals begin from "wombs" in the soil fed from the earth as milk from a breast. The difference is that in Gen. 2:19, G_d forms the animals with the same root as man (*yotzer* י.צ.י), a clay made from the moisture coming up from the ground, animals from fertile soil (*adamah* א.ד.א) as opposed to Man from infertile dust (*afar* א.פ.א). (Nichols 121; Lucretius, V, vs. 783-790).

Lucretius original growing conditions were ideal: (Eden in general; Nichols 121; Lucretius, V, vs. 817-820).

Lucretius, Book V: Gender of the Earth

Lucretius refers to the earth as female, while the Hebrew for “the earth” (*haaretz*, ז.א.ס, **Strong’s 776**) is also female (Nichols 121; Lucretius: V, vs. 795-6, 815, 821, & 833).

Lucretius, Book V: Beginning of Man

Then Lucretius posits the appearance of man, in the same order as the Torah with man immediately after the animals (Gen. 1: 26-7).

At first men were bigger and hardier than today (similar to the references in Gen. 5&6). They were working alone before there were women (Nichols p124; Genesis 2:8-21, Lucretius, V, vs. 925-932).

The first people were naked (Lucretius: V, vs. 953-4) and they ate only plant foods that they gathered (Nichols p124; Gen. 2:29; Lucretius V. vs. 939-944).

Lucretius proposes that human ‘progression’ toward monogamy as ‘natural’ or inherently true (Genesis 2-3) for purposes of rearing children (Nichols p 127; Lucretius: V, vs. 1011).

Lucretius states that the time of the earth’s bearing new living things came to an end. This renders man as the last creative act, similar to Genesis 1 (Nichols 121; Lucretius: V, vs. 833). Interestingly, he also describes a process quite akin to natural selection (V vs. 820-925). Did Darwin read Lucretius too?

Further Parallels with Lucretius in Genesis

Lucretius asserts the first city began for exactly the reason of common protection discussed in Gen. 4, with the same “fugitive and wanderer” results of disaster and refugee status (Gen. 4:12-17; Nichols p 146; Lucretius V. vs. 1225-1240).

Lucretius cites the first form of artisanship was metalworking (not stone), exactly as discussed in Genesis 4 with Tubalcain being the first artisan mentioned (although not the first “art” mentioned in Genesis, which was music) (Nichols p168; Lucretius: V, vs. 1241-1282).

References

- 2001 Alroy, J.; *A Multispecies Overkill of the End-Pleistocene Megafaunal Mass Extinction*; Science 292:1893-1896.
- 2005 Anderson, Kat; *Tending the Wild; Native American Knowledge and the Management of California’s Natural Resources*; University of California Press.
- 1984 Audubon, J.W.; *Audubon’s Western Journal, 1849-1850*; University of Arizona Press, Tuscon.
- 2003 Brewer, William H.; *Up and Down California, a journal of the USGS survey of 1860-64*; University of California Press; Fourth Edition, ISBN-10: 0520238656.
- 2001 Brown, Alan K.; *A Description of Distant Roads; Original Journals of the First Expedition into California, 1769-1770, by Fray Juan Crespi*; San Diego State University Press.
- 1977 Gay, Peter; *The Enlightenment: The Rise of Modern Paganism*; W. W. Norton & Company; ISBN-10: 0393313026.
- 2004 Hecht, S; *Indigenous Soil Management and the Creation of Amazonian Dark Earths: Implications of Kayapo Practices*; in Lehmann et al. 2004 355-71.

- 2002 Hildebrandt, William R. & Terry L. Jones; *Depletion of Prehistoric Pinniped Populations along the California and Oregon Coasts*; from Kay 2002.
- 2002 Hylkema, Mark G.; *Tidal Marsh, Oak Woodlands, and Cultural Florescence in the Southern San Francisco Bay Region*; Chapter 13 of *CATALYSTS TO COMPLEXITY: Late Holocene Societies of the California Coast*; Edited by Jon M. Erlandson and Terry L. Jones; Perspectives in California Archaeology, Volume 6; Cotsen Institute of Archaeology, University of California, Los Angeles; pp232-259.
- 2006 Johnson, Monte Ransome and Catherine Wilson, *Lucretius and the History of Science*; Monte Ransome Johnson, from *The Cambridge Companion to Lucretius*; (ed. P. Hardie and S. Gillispie). Retrieved from http://philsci-archive.pitt.edu/2705/1/Lucretius_and_the_History_of_Science_complete.pdf.
- 1963 Jonas, Hans; *The Gnostic Religion*; Beacon Press; 3rd edition (January 16, 2001); ISBN-10: 0807058017.
- 2002 Kay, C. E.; *Wilderness & Political Ecology: Aboriginal Influences & the Original State of Nature*; University of Utah Press; ISBN 0-87480-719-0.
- 2007 Kay, Charles E.; *Were native people keystone predators? A continuous-time analysis of wildlife observations made by Lewis and Clark in 1804-1806*; Canadian Field-Naturalist 121(1): 1–16.
- 2006 Mann, Charles C.; *1491: New Revelations of the Americas Before Columbus*; Vintage; IAABN 978-1-4000-3205-1.
- 1967 Martin, P.S. and H.E. Wright; *Pleistocene Extinctions: The Search for a Cause*; Yale University Press, New Haven, CT.
- 1999 Martin, P.S. and D.W. Steadman; *Extinctions in Near Time: Causes, Contexts, and Consequences*; pp17-55; Kluwer/Plenum Academic Publishers, NY.
- 1976 McNeill, William H.; *Plagues and Peoples*; Anchor Press.
- 1998 Mech; L. David, Thomas J. Meier, Layne G. Adams; *The Wolves of Denali*; University of Minnesota Press (April 1998), ISBN-10: 0816629587.
- 1976 Nichols, James H. Jr.; *Epicurean Political Philosophy: The De rerum natura of Lucretius*; Cornell University Press; 210pp; ISBN0-0814-0993-4.
- 2008 Mann, Charles C.; *Ancient Earthmovers of the Amazon*; The forested western Amazon was once thought barren of complex human culture. But researchers are now uncovering enigmatic earthworks left by large, organized societies that once lived and farmed here: printed as, *The Western Amazon's "Garden Cities"*; 29 August 2008 Science 321 (5893), 1151. [DOI: 10.1126/science.321.5893.1151].
- 2007 Stallings, A. E. translation of Titus Carus Lucretius' *De rerum natura*; Penguin Classics, 2007; ISBN 978-0-140-44796-5.
- 2004 Thoreau, H.D; *Walden*; 1854 Yale University Press; Annotated edition; ISBN-10: 0300104669.
- 2006 Williams, Judith; *Clam Gardens*; New Star Books (November 9, 2006); ISBN: 978-1554200238.