

Ecospirituality in the Age of Technological Overkill: Body-Time Reclamation in the Fiction of Alan Lightman and Don DeLillo

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The link between ecospirituality, which may be defined simply as reverence for the natural world and a sense of integration with it, and the hard sciences is an interesting one—in large part because an overreliance on one, the hard sciences, may, paradoxically, have led to an increasing felt need for the other. Though subject to critique over the last half century or so from various poststructuralist, postmodernist, and postcolonial positions, Enlightenment thinking has nonetheless prevailed into the twenty-first century in a number of areas, together with assumptions which remain to a large extent unexamined. Among such prevalent paradigms is the breaking-up of the world into smaller and smaller increments of space and time, measurable by devices created through the technologies that the hard sciences of physics, mathematics, and chemistry make possible. The applications of such research to the practical realities of daily living are manifold; yet, curiously, we remain to a large part alarmingly unreflective about them. Communication can now be effected through something as simple as an email or text message sent from a smart phone or other mobile email device. The gap between thought, communication of that thought, and reception of that thought by another subject need only be a few seconds in this era of high-speed networking. But few have questioned whether the shortening of this gap, a gap which would have consisted of days or weeks in an earlier time of letter writing, is entirely salutary. Medical instruments are able to measure biological processes occurring on a microcosmic level; accordingly, a medical discourse has arisen comprised of specialized vocabularies which are accessible to experts, on the one hand, but which, on the other, also serve to distance people from the actual experiencing of their own bodies.¹ The fragmentation of consciousness brought about through multiple narrational commitments in the realm of communication devices—with interlocutors through various email accounts, smart phones, regular telephone—is thus reflected in a fragmentation of bodily experience as mediated by the specialized discourse of Western medicine. Never before have the human mind and body been so heavily colonized by urgent (and often foreign) demands from devices originally designed to assist us. In simple terms, it seems the servant has

¹ The leading figure in tracing the emergence of this discourse as a power/knowledge regime is, of course, Michel Foucault, with his concept of “the medical gaze” in *The Birth of the Clinic (La naissance de la clinique, 1963)*.. .

become the master. With this inversion has come a frantic sense of displacement, of dis-ease in the world, a sense of no longer being at home in it, while suffering the relentless imperatives of a technologically driven culture. In this type of culture, little time seems, indeed, to exist for modes of contemplative thought and a sense of unity with the world which hunter-and-gatherer societies appear to have enjoyed (and which aboriginal peoples today continue to enjoy, albeit at the impinging peril of urban expansion and government-sponsored efforts to assimilate such peoples into the industrialized world).²

This sense of widespread alienation, already manifest a century ago in the urban milieu of the Western world (and deriving, in large part, from the Industrial Revolution), is a well-documented facet of Modernity, one predating the current hyper-technologized vogue. It has been adumbrated at length in the social sciences and illustrated in detail in the field of literature. Max Weber's concept of the iron cage (*stahlhartes Gehäuse*) in *The Protestant Ethic and the Spirit of Capitalism* (1905) is a widely used term referring to the increased bureaucratization of the social order—more lyrically described by Weber as “the polar night of icy darkness” (“Political Writings” xvi)³ W. H. Auden's poem “The Unknown Citizen” (1940) encapsulates the eradication of human individuality and autonomy in the era of the iron cage. The poem eulogizes the life of a deceased factory worker known only by the social security number on his tombstone, JS/07M378, and the statistics of his life as recorded by numerous organizations or their representatives, all capitalized in the poem to indicate their power (and to ironically undercut the authority of their observations): “the Bureau of Statistics,” his “Union,” “the Press,” his “Health-card.” The acerbic irony underlying the poem comes to the surface in its closing lines: “Was he free? Was he happy? The question is absurd: / Had anything been wrong, we should certainly have heard” (85). Auden's mid-century poem has been anthologized *ad infinitum*, and taught in high schools and university literature

² Slavoj Žižek argues that this sense of frantic or “fake” urgency in contemporary culture even underscores our apparent opportunities for benevolence. As a good example, he cites the lure of buying a Starbucks coffee: Starbucks' widely advertised policy of donating a fraction of profits to charity appears to “instantaneously” save a starving child's life in some poverty-stricken region of the Third World; yet, this is an illusion, of course, since both the time it takes for the money to get there and the tiny amount Starbucks actually sends per cup of coffee make such perceived efficacy minimal at best. The very notion of “charity” is for Žižek, in fact, problematic, an insidiously deceptive tool of what he calls “the liberal communist.” Žižek defines charity (as practiced by this type of individual) thus: “charity is the humanitarian mask hiding the face of economic exploitation” (22).

³ A detailed analysis of the reception of Weber's work as a sociologist is outside the purview of this study (and my own disciplinary expertise). I invoke his notion of the iron cage, however, as a general metaphor commonly appreciated for the manner in which it encapsulates the nature of a widespread sentiment in the era of industrialization. It should be noted, however, that the translation of *stahlhartes Gehäuse* has been questioned by some sociologists. See Peter Baehr's discussion in “The ‘Iron Cage’ and the ‘Shell as Hard as Steel’: Parsons, Weber, and the Stahlhartes Gehäuse Metaphor in *The Protestant Ethic and the Spirit of Capitalism*.” Baehr suggests that the expression “the shell as hard as steel” would be the better translation. While subtle nuances certainly distinguish the different translations, both seem to convey a sense of entrapment or confinement unquestionably inimical to human freedom and fulfillment.

survey courses all over the world. Few poems have more deeply embedded themselves within the collective store of cultural memory concerning the darker side of Modernity's destructive effects on the human spirit; few poems too have as powerfully expressed the callous indifference of our times to the more fundamental facet of being human, to one's inner sense of freedom and need for self-fulfillment. Perhaps more frightening than the meaning of the poem is the fact that the lesson conveyed in it has brought about no change in the trajectory of the social order, which continues headlong towards further tightening of the iron cage. This fact gets reflected in some of the literature recently written at what many had hoped to be a purely utopian moment, i.e. the dawn of a new millennium and the promise of greater human freedom and autonomy. As we commence the second decade of the new millennium, the dispiritingly nominal nature of the transition must be conceded. Never before has the iron cage been tighter, in large part thanks to the instrumentalized discoveries in the hard sciences and the teleological efficiency of high-speed communication brought about through them. For commensurate with this accelerated rate of information exchange comes the assumption that because we now have the ability to communicate faster with ever-greater numbers of people, we *should* do so.

One consolation is that the literature of our time continues to hold up a mirror to us of our daily lives, offering both a reflection of how we live today and an often poignant, often painful critique of the foibles of contemporary life. At its best, it identifies the source of our existential angst while celebrating the inherent capacity of the human spirit to find redemption, even in the face of defeat. Two writers in particular, both American, seem to me to encapsulate well this fact of our enslavement to technology, of the extent to which the human spirit has been forced into the cramped confines it now inhabits, and of resourcefulness enabling humanity to find a self-corrective. On the one hand, in both his novel *The Diagnosis* and his short story collection *Einstein's Dreams*, MIT physicist and fiction writer Alan Lightman, with a foot in both worlds, seems to tap into the *zeitgeist* which I have been adumbrating. On the other hand, in his most recent novel, Don DeLillo, long celebrated for his trenchant critiques of the excesses of American culture, outlines the general sense of fatigue permeating American culture in the post-Iraq-war era His *Point Omega* targets both American foreign policy and the discombobulating "nausea of news and traffic" (DeLillo, *Point Omega* 18) of America's contemporary urban scene. Both writers point towards a return to the natural world and to the rhythms inherent within it as an antidote to the poisons of technological overkill.

On a theoretical level, what is at stake for both novelists comes across as a conflict, or more properly labeled, a kind of tug-of-war between two paradigms of time. One is the fast-paced, linear, financially-sponsored paradigm of chronological time, of history as we know it, as enshrined by the Judeo-Christian eschatological tradition and

adopted generally by mainstream secular culture. The other might be characterized as “unhistorical,” cyclical time or, as Lightman puts it in *Einstein’s Dreams*, “body time,” in which the rhythms of the earth and the bodies within it become the guiding paradigm for human experience. The first view of time, as both these novelists show, squeezes human experience—or maps it, rather—according to the logic of physics as recuperated under the regime of capitalism. This is an important point for this essay, since it is not the hard sciences *per se* that are here considered responsible for the protagonists’ sense of alienation from their environments, but the extent to which capitalism valorizes chronological time at the expense of the bodies obliged to operate within it.⁴ The second view of time, that of cyclical time, functions as a salve, a modality of both escape and human fulfillment for the protagonists, a paradigm they seek in order to “unmap” themselves from the grid of contemporary capitalist culture.

The work of Paul Shepard, which will be invoked again near the end of this essay, should be mentioned here as a broader paradigm through which to appreciate the conflict between the two paradigms of time. While Shepard’s thought has been acknowledged in many quarters, it has long been neglected by cultural relativists loath to admit that a deep connection to the natural world is not culturally relative but represents, as Shepard argues, an innate capacity in each and every one of us. In spite of this essentialist stance—and for many people because of it—Shepard’s exploration of the human relationship to the environment is foundational and functional as a viable paradigm for negotiating the needed transition from, as Frederic Bender puts it, “*Homo colossus* to *Homo ecologicus*” (9).⁵ Shepard’s work returns us, as C .L. Rawlins claims in his foreword to *Nature and Madness*, to “the world our bodies knew” (Shepard xviii) before our separation from the natural world and before the long-entrenched Western belief that we are somehow outside it instead of an integral part of an ecological whole.⁶

Lightman’s *Einstein’s Dreams* rose to the top of *The New York Times* bestseller list in the late 1990s for good reason: many of its stories tapped a zeitgeist with which

⁴ There are, in fact, sub-disciplines within the hard sciences which not only do not alienate the subject further from his or her environment, but which also seek to promote an understanding of the dissolution of the subject/object boundary altogether. Fritjof Capra’s *The Tao of Physics* (1975) is perhaps a seminal work in this regard: the book celebrates research in quantum physics supporting the view that the subject’s perceptive involvement in experiments affects the outcome. Also of significance is Capra’s subsequent work in uniting the ostensibly disparate subjects of physics and Eastern thought or mysticism. Capra co-founded the Center for Ecoliteracy in Berkeley, California, whose mission is to promote a reverence for all life forms and to resurrect the wisdom of indigenous peoples by rescuing it from its bottom-tier status among the esteemed epistemologies of our time. Capra has also written *The Web of Life* (1996) and *Hidden Connections* (2002), as well as co-authored *Green Politics* (1984) with ecofeminist Charlene Spretnak.

⁵ William R. Catton may have been the first to use this term. In a paper entitled “Worse than Foreseen by Malthus (even if the living do not outnumber the dead),” he writes: “In recognition of our voracious appetites for non-renewable resources, I have proposed the term ‘Homo colossus’ to designate modern humans equipped with today’s technology and organization” (n.p.).

⁶ This is the subject of an as yet unpublished essay of the author, “The World Our Bodies Knew: Ontogenetic Longing in the Ecoliterary Imagination.”

almost anyone could identify who was part of the fast-paced, technology-driven urban culture of the time. In an era of capital obsession and unprecedented greed, it drew attention to the only commodity of more value to us (one which, ironically, through this mad pursuit for wealth, was being drawn out of our lives and measured minute at a time). The motif underpinning the collection is simple yet infinite in its possible renderings. The preface narrates a young Albert Einstein as a patent clerk who takes naps at his desk and in whose dreams “time” always does something different. The dreams are titled after the dates on which they occur, but the way time functions in each dream is explained from the outset. In one story, time flows backwards, in another it stands still, and in another still, it progresses in fits and starts so that merriment and pleasurable experiences pass in a heartbeat, while suffering of any kind seems to last forever. In the manner of good science fiction, what these stories really do is comment on the contemporary experience of time which, as Lightman illustrates, differs markedly from the accepted scientific paradigm of a linear, uniform process. Many people, for example, focus their conscious attention on an event that happened many years ago, unable to let go of pains received or caused to another; for them, time really has frozen in the one moment. Almost everyone has experienced the way time passes quickly during a pleasurable experience; hence the cliché “time flies when you’re having fun.” The stories thus put a literal spin on the powerful metaphors which play out in our lives as if they were actual functions of time.

The classic in the collection, in my view, is the story dated “April 24, 1905,” which features two types of people: those who live by “mechanical time” and those who live by “body time.” The first group is comprised of people who are virtual slaves to mechanical time: people constantly checking their watches and changing their behavior based on alarm clocks, clock towers, and other time-keeping devices. Individuals in the second group base their behavior on the messages given them by their bodies. The sense of freedom experienced by those who follow the rhythms of their bodies—as opposed to the enslavement of those who follow mechanical time—is conveyed immediately in the opening lines of the story. Mechanical time is said to be “rigid and metallic as a massive pendulum of iron that swings back and forth, back and forth, back and forth” (22). Body time, on the other hand, “squirms and wriggles like a bluefish in a bay. The first is unyielding, predetermined. The second makes up its mind as it goes along” (23). The diction here betrays Lightman’s piercing authorial vision as both a physicist and an imaginative observer of human nature. The reader senses behind the fictional framework a powerful denunciation of the way in which the hard sciences, as recuperated by capitalism, have implicated human experience within a disabling and soul-crushing paradigm. The reference to “iron” recalls Weber’s iron cage, and the repetition of “back and forth” invokes the continuous claims of the nine-to-five schedule upon the lives of those contained within it, a cycle ending only with death or with

retirement at an age well past the prime of life when experience is most intense and best enjoyed.

If the artistry is heavy handed here, it also serves the function of the best literature of any time: to both reflect how we live today and to point towards the possibility of a better paradigm. Of course, the better paradigm is, in fact, already with us, although those who follow it are often consigned to peripheral status: drifters, hippies, drop-outs, freaks, the mad, the misfits—these are only some of the derogatory terms applied to those who reject the mechanical paradigm and embrace body time. Nevertheless, Lightman is unambiguous in his own choice of lifestyles, even a little emboldened, perhaps, by the distance his fiction gives him. Those who follow body time in his story seem hardly even aware that mechanical time exists. They may wear watches, but they do so only “as ornaments” (23). They “listen to their heartbeats. They feel the rhythms of their moods and desires. Such people eat when they are hungry, go to their jobs at the millinery or the chemist’s whenever they wake from their sleep, make love all hours of the day” (23). Those trapped in mechanical time, however, enjoy no such freedom; Lightman is unequivocally clear in his criticism of their self-imposed constraints, of their denial of any connection to the rhythms of the natural world. These are people taken out of nature, disconnected from themselves, and locked in a sterile cerebral paradigm of mind utterly divorced from the ebb and flow of natural processes. Their plight—or ours, for most of us, certainly, in the Western world today—is worth looking at in detail:

Then there are those who think their bodies don’t exist. They live by mechanical time. They rise at seven o’clock in the morning. They eat their lunch at noon and their supper at six. They arrive at their appointments on time, precisely by the clock. They make love between eight and ten at night. They work forty hours a week, read the Sunday paper on Sunday, play chess on Tuesday nights. When their stomach growls, they look at their watch to see if it is time to eat. When they begin to lose themselves in a concert, they look at the clock above the stage to see when it will be time to go home. They know the body is not a thing of wild magic, but a collection of chemicals, tissues, and nerve impulses. Thoughts are no more than electrical surges in the brain. Sexual arousal is no more than a flow of chemicals to certain nerve endings. Sadness no more than a bit of acid transfixed in the cerebellum. In short, the body is a machine, subject to the same laws of electricity and mechanics as an electron or clock. As such, the body must be addressed in the language of physics. And if the body speaks, it is the speaking only of so many levers and forces. The body is a thing to be ordered, not obeyed. (*Einstein’s Dream* 24-25)

The last lines here read as utterly uncompromising in their condemnation of the subscription to a paradigm that views the body as a machine, subject to the laws of physics and chemistry as described by those hard sciences. The parallels in this passage to contemporary attitudes towards the human body are striking, if for a moment entirely frightening when viewed through the lens of Lightman’s narrator—whose

depiction highlights the lack of spontaneity and freedom existing within such a paradigm. The rise of neuroscience in our time, the belief that we are all “hard-wired” to behave in certain ways, testifies to the way in which contemporary culture has bought into the view of the body as a machine.⁷

More frightening still is the juxtaposition of the body as something to be “ordered” versus the body as something to be honored. Those neurotically committed to the mechanical paradigm ignore the dialogue which their bodies continuously instigate: the growling of stomachs, the rapture of music, or the sexual attraction to another outside the prescribed hours for intimate activity between lovers. Integration of mind and body are denied with vehement repudiation of the continuous messages the body sends out. The human subject as “mapped nature” is nowhere more painfully illustrated. The bodily (natural) rhythms governing food intake, sexual activity and physical movement of other kinds are constrained within the strict measurement of mechanical time.

The universe, in its infinite wisdom (as some might say), has given the human body two primary signals to navigate its way harmoniously through the world: pleasure and pain. Without a constant ear attuned to the frequencies emitted by the body, it seems obvious that one is doomed to go astray. In Lightman’s short story, those trapped in mechanical time are walking time-bombs for the stressful disorders so prevalent in contemporary urban life today. As victims of a nine-to-five lifestyle, they prove also victims of their own self-imprisonment within a paradigm that fails to honor the body as an interlocutor deserving of their attention and respect. Calvin O. Schrag, in *The Self after Postmodernity*, tries to resurrect the body from its early burial in a Cartesian paradigm that views it as a “dead” mechanistic other: his overall position is that one does not “have” a body, but that one “is” a body (see Schrag). Lightman’s characters, in listening to their bodies, are actually listening to themselves.

The sense of fulfillment and pleasure taken in the rhythms of the body by those committed to body time—as noted above—serves as a striking contrast and a much-needed reminder of our selves, our very bodies, as organisms comprised of impulses and “wild magic” that exceed the confining limits of any scientific paradigm. To deny the mysterious alchemy of body and spirit which encompasses human experience in all of its salutary forms is to subscribe, ultimately, to a paradigm that does not facilitate the

⁷ Much more is at stake than one might first assume in the contemporary subscription to neuroscience as a model for human behavior. As Gary Greenberg implies in a 2007 *Harpers* article, “A Mind of Its Own,” the freedom of the human imagination itself is increasingly coming under the constraints of an instrumental logic (fostered, to a large extent, by the digitized world of the internet). “As a neuroscientist will no doubt some day discover, metaphor is something that the brain does when complexity renders it [incapable] of thinking straight” (85). Metaphor, as I have argued elsewhere, is the lifeblood of a culture’s capacity to evolve beyond the often bureaucratic facilitation of social evils and inequities. To render it assignable to a category of “not thinking straight” simply disregards its transformative and essentially salutary character for culture and civilization as we know them.

full range of being human. Lightman's artistic renderings convey in no uncertain terms the soul-quashing quality of human life governed by the laws of mechanical time.

A more subtle but highly satiric comment on mechanical time along with the accumulation of capital—time is money, as the saying goes—is to be found in the following story in the collection, “26 April, 1905.” In this world, scientists have discovered that time moves more slowly the further you are from the center of the earth. The effect is miniscule, however, and must be measured with extremely sensitive instruments to register differences. Nevertheless, since the discovery, more and more people have been moving to the mountains, with almost everyone living there by the time of the action in the story. Real estate is at a premium on the highest mountain tops: “Height has become status” (28). Things get even more hyperbolic: everyone builds their houses on stilts—some as long as half a mile—so as to maximize the effect of slowing time down, even if it is for a negligible few seconds over an entire existence. Lightman's narrator conveys a sense of the absurd in commensurate parodic detail: “The mountaintops all over the world are nested with such houses, which from a distance look like a flock of fat birds squatting on long skinny legs” (26). Residents look up in envy at those perched above them and with derision on those below them, an unsubtle critique of capitalist culture and the ways in which the wealthy are envied, while those with comparatively less capital are derided. When people are forced to go down and leave the mountains on business or for some other urgent matter, they hurry at ground level, lest they lose precious seconds from their lives: “People at ground level never sit. They run, carrying their briefcases or groceries” (29-30).

This symbolizes, of course, the mainstream culture in which we live today, with its madly unchecked pursuit of wealth, of the unquestioned accumulation of capital for its own sake without any sense of purposeful living beyond it. In *The World We Want*, Mark Kingwell describes this neurotically ingrained imperative of contemporary urban culture, where “wealth has become its own self-reflexive standard of value [...] Never before have so many been wealthy to so little purpose” (209). But because we are conditioned to accept living this way, the insanity is difficult to perceive. In shifting from money to time, however, Lightman's story enables us to see in the mirror our own sorry reflections. In a satire rooted in physics, Lightman illuminates the soulless mechanical paradigm to which we have committed ourselves, one which divorces us both from the world around us and from the natural rhythms present within our own organisms. This rhythm is lyrically encapsulated in another story where characters unexpectedly meet and “slip into conversation” with a leisurely surrender to the spontaneous imperatives of the dialogue, “the way a leaf falls from a tree” (117).⁸ As in

⁸ Later in the same story, these same characters exhibit a finely attuned awareness of the rhythms of the natural world when they meet by the “Zahringer Fountain,” and are so entranced that they “follow the parabola of the water with their eyes” (118). The fountain is no mere backdrop for their conversation, but

the previous story, a corrective paradigm is illustrated, although in this particular world, it is only enjoyed by a select few who have abandoned the foolhardy race for a few precious microseconds:

A small number of residents in each city have stopped caring whether they age a few seconds faster than their neighbors. These adventuresome souls come down to the lower world for days at a time, lounge under the trees that grow in the valleys, swim leisurely in the lakes that lie at warmer altitudes, roll on level ground. They hardly look at their watches and cannot tell you if it is Monday or Thursday. When the others rush by them and scoff, they just smile. (30)

This insouciant group, indifferent to the competitive spirit underscoring their cultural existence, enjoy an evident lifestyle advantage. At times, Lightman verges on manifesto-like didacticism in his artful critique of contemporary culture, but he does so with refreshing candor. He poses through his fiction the philosophical question Kingwell asks in *The Word We Want* (2000), the obvious one of: “to what end” is this frenzied pursuit of wealth? The small number of residents who have stopped chasing time and now enjoy life at a pleasurable pace seem to frame the question in a poignant fashion.

Thus, Lightman’s short stories in *Einstein’s Dreams* shine with allusive glitter and illuminate with poetic pungency the ills of a contemporary urban lifestyle driven by the mechanistic paradigm of a time-obsessed iron-cage world. His novel *The Diagnosis* achieves the same end with a great deal more specificity and finger pointing at the culprit behind the widespread sense of malaise. *The Diagnosis* carries an irony in its title, one not immediately evident. The conventional meaning of a doctor’s discerning conviction of what is actually wrong with a person slowly gets replaced by the protagonist’s intuitive sense of what is wrong with him—along with the reader’s appreciation for this subtler, more important determination. The implication is that we should become less dependent on the products of technological assessment of our health and more in tune with our body’s own built-in guidance system with its millions of years of genetic programming to help us self-correct when patterns of behavior make us sick.

The protagonist of *The Diagnosis*, Bill Chalmers works as an information trader in New York City and has lost touch with his interior self, his spiritual nature. Chalmers is enslaved in a matrix of technologized communication engagements, a framework facilitated and enforced by the very demands of his employment. Exacerbating this high-speed activity of information exchange is Chalmers’ commute schedule to work each morning on the cramped and crowded trains of New York’s underground transport system. The title of the first chapter, “On the Subway,” is meant to highlight the

instead becomes a central focal point to which they give their full attention. According to Dennis Lee, such an action is both an instance of epistemological entry to the world and an instance of “natural prayer” or what we might call ecospirituality (see “Body Music: Notes on Rhythm and Poetry”).

debilitating effects of this particular means of arriving at work each day. The novel's opening sentence, though innocuous at first glance, actually contains a damning indictment on the indifference of people towards each other, one easily generated by our modes of contemporary urban living. "People must have been in a great hurry," the story commences, "for no one noticed anything wrong with Bill Chalmers as he dashed from his automobile one fine morning" (3). The reader soon realizes, however, that there is nothing exceptional about this "great hurry," that it is, in fact, the normal routine of early morning big-city life, as commuters like Chalmers "dash" from their cars to catch their trains on time. The opening sentence thus captures from the outset a fundamental social ill: our manner of commencing our employment precludes the basic awareness of the plights of our fellow citizens—a patent weakness from any sound-thinking point of view. Lightman's plot has not even begun to analyze the nature of the work itself, merely the means of *getting* to work. The reader is commensurately prepared for a darkening descent into the realities of urban capitalism. And darker it does indeed get.

The verbs paint a vivid picture of a social mechanism at its limits, together with the physical and emotional extremes of those constrained within it: people are "galloping" from their cars to catch their trains on time; when one train leaves and a horde of commuters fail to reach its closing doors, one person "groans" loudly while others are "shouting"; yet another person runs alongside the departing train "slapping his magazine against the red paneled doors" (3). Chalmers himself, whose pause at the turnstile is a suspected cause of the missed train for the people behind him, faces the "accusing stare" of a tall man: "What a jerk, Chalmers thought to himself and looked down at his watch. It was 8:22. Twenty-three minutes to his stop, a nine-minute walk to his building, two minutes on the elevator, and he'd be sitting at his desk by 9:00. Assuming the train on Track Two arrived and departed within four minutes, as it should" (3-4). The animosity among fellow commuters toward each other and toward the departing train—as if it were a sentient creature capable of either remorse or repentance—is highlighted here, as well as the inherent stressfulness of the situation. Needless to say, these commuters do not exactly embody happy, carefree souls on their merry way to a day of meaningful work. Equally insidious is the fragmentation of time: Chalmers has his arrival at work dissected into the smallest of increments, with not a moment to spare. And here is where things go horribly wrong.

Already pushed to the limit in merely getting to the subway station, Chalmers can face no further stress without the danger of a meltdown. He begins to worry that the train on Track Two might be late, and everything happening around him only serves to increase the internal pressure he already feels: people "gulping" down coffee and muffins, rolls and hard-boiled eggs—hardly a leisurely breakfast—and failed attempts to unfold newspapers giving way to helplessly "staring at the digital sign on the kiosk, where bits of news and the correct time scrolled by in bright glowing dots" (4).

Chalmers is greeted from across the crowded platform by his neighbor, for whom he has few words as he is busy trying to retrieve phone messages. This detail contains a mini critique of the way in which face-to-face communication in our time has become subjugated to the ostensibly more important imperatives of technologically enhanced communication.⁹

These opening descriptions capture well the sense of overwhelming fragmentation characteristic of urban life, where intersubjective communication is hostile and brief, public news is conveyed in bits, and people generally feel lost in thoughts comprised of an anxiety-inducing mix of externally and internally generated deadlines. The scene is set for Chalmers' downfall. Within minutes, he has forgotten his stop. Soon he realizes he has lost his briefcase. He tries to use his cell phone but cannot get a signal. His anxiety mounts over appointments scheduled for early morning that are now in jeopardy. Within minutes he suffers a cognitive collapse in which he cannot remember his home telephone number nor even, indeed, his name. "What's happening to me?" he begins demanding of the people around him, of the subway car itself. People stare and whisper but no one helps him. Ironically, as his own neural circuits overload, the only thing he can remember is the corporate motto driving the wired world to which he has grown accustomed: "the maximum information in the minimum time" (20) When he kicks off his shoes and socks and lies down on the train floor, his collapse is complete: "When the police boarded the train at South Station, they found him curled up on the floor in a fetal position, clasping his phone to his bare chest" (20).

Chalmers is taken to the hospital by the police, all the while concerned with his missed appointments. He keeps asking about the time, and is still unaware that his focus must shift from these external concerns to the more fundamental issue of his fragmented self. At the hospital, "specialists" debate what to do with him. Without authorization from relatives, they are unable to perform a desired biopsy. Instead, he is given over to the probing lights and bleeps from a brand new "aspirator." Something goes horribly wrong, however, and the machine fails. Chalmers is "stitched up" from the accident and sent up to "Psychiatric" for the night, during which, at the first opportunity, he escapes. It is here that the novel truly gets interesting. Interspersed with a narrative of Chalmers' wife, Melissa, who is having an email relationship with a professor—the novel's chapters dealing with their affair is comprised of emails and

⁹ The way cell phones in general take priority over face-to-face dialogue seems to me a simply astounding feature of contemporary culture. I write from Taipei, Taiwan, where I have lived for the last five years and witnessed on dozens of occasions the way people will interrupt a face-to-face encounter to answer a cell phone, even when the call is not urgent or business-related. The most intimate dinners are disrupted due to cell phone technology; more frightening, perhaps, is the fact that few seem to reflect on the reason why a spontaneous telephone call from an absent third party should take precedence over a dialogue already in place, one which required both planning and commitment of the parties involved to coordinate their common physical presence.

instant messages from each one—the main storyline shows Chalmers wandering the streets in search of reconnection with himself, which he finally finds through encounters with the rhythms of the natural world.

Before Chalmers manages to feel at home in the world again, however, he regains a sense of identity, returns to his house, and attempts to resume his “normal” life. Appointments are made at the hospital, but ultimately, the attempts of modern medicine fail to locate the source of Chalmers’ problem. The sense of anonymous surveillance over the human body, severed from the patient’s own experience, is captured well (and not without humor) in the following passage. Chalmers appears as no more than a body to be analyzed when the doctor is not attending to other matters of personal interest:

“At this point,” came a hidden voice from behind the stacks, “I’m afraid to say that we understand very little about your difficulty. It could be many things, some minor, some not minor. Some illnesses disappear on their own. We’ll need to run tests.” A buzzer went off. “Not now, I’m with someone ... Yes, I’m logged on, you can do that ... Five or ten minutes.” There was a click. “We will begin some tests.”

“Are you talking to me?” said Bill. He stood up in an attempt to see over the mounds of papers. (119)

The passage implies a profound disconnection between the source of Chalmers’ problem, the “specialists” appointed to help him, and his own understanding of where the problem is located. Chalmers here resembles a man who loses his keys in a dark house and goes out into the street to look for them under the bright light of a street lamp. There may be an official system in place to treat the illnesses of people, but it often goes nowhere near the source of these diseases in its fragmentary approach to the human subject.

A conversation which Chalmers has with another patient further underscores the gap between the respect accorded to medical specialists’ opinions on our well-being and the actual benefit these opinions bring for well-being:

“You seem to have learned a fair amount about your illness,” said Bill.

“I have, I have,” said Bineas. “But not all thanks to Petrov. I’ve also been getting tips from another physician who I’ve been visiting on the side and paying out of my own pocket. He charges much less than Petrov. There’s a possibility that he might see you as well. He takes calls after eight in the evening.”

“Has he diagnosed you?” asked Bill.

“Twice. Neither of the diagnoses was of much help ...” (114)

Here, the latent, subtle levity of the novelist no longer derides the paradigm of the hard sciences recuperated by capitalism, with its relentless breaking-down of the human body into smaller parts and distinct processes: Lightman is poking fun at *our addiction to this fragmentation*, which in this passage is rendered akin to the manner of a sexual addiction—as in “visiting on the side.” The medical profession is also depicted less as a

uniform body of medical knowledge than as a wide range of idiosyncratic "quacks" who make up their own philosophies as they go along and demand as a fee whatever they feel compelled to charge.

That these "specialists" remain entirely divorced from the real cause of what is wrong in their patients' lives is illustrated by the narrative as a whole. In revealing the intimate details of its protagonist's existence, the story establishes clearly that the physical numbness which Bill Chalmers experiences is symptomatic of a much larger spiritual illness, one brought about, precisely, through a regimentation of human life wholly ignorant of the ebb and flow of bodily rhythms. Indeed, Bill Chalmers knows nothing of these rhythms of nature; he is only attuned to those dictated by the numerous time-keeping and communication devices which structure his living, from the moment he wakes until the moment he retires for the night. In a strong echo of Weber's iron cage (and of our own existences), all of these devices dominating Chalmers' quotidian are, moreover, put in place to maximize the efficiency of the clockwork wheels of capitalism, and, naturally, to increase profit. Making more money is thus not only taken as a sign of increased efficiency, but also mistaken for the "good" life.

The interspersed narrative of "Anytus" and "Sokrates" (shared between Chalmers and his son, Alex, as a reading project) proves illuminating here in a number of respects. The disdain which the wealthy Anytus feels for Sokrates and his desire to be rid of him shed light on the ways in which our obsession with wealth has caused us to forget the meaning of "the good life" as often discussed by the historical Socrates and handed down to a contemporary generation of philosophers. Alisdair MacIntyre puts it best, if somewhat enigmatically, in saying that "the good life is the life spent seeking the good life" (qtd. in Kingwell 210). It is precisely this kind of larger thinking that has disappeared in our culture. Along with the instrumentalizing of reason into the narrow supportive regions of capitalist efficiency, reason has also been constrained within a paradigm that views the human body as a machine and that remains oblivious to the governing entity of the spiritual being behind/within the machine. The short stories in *Einstein's Dreams* seem perhaps more effective in their poetic depiction of this process, but *The Diagnosis* is more piercing in the multiple angles from which it approaches its subject, illuminating the limitations of the medical concept of "diagnosis," while also offering a more comprehensive diagnosis of our culture at large.

It is quite likely that a model for Lightman's Bill Chalmers exists in the death-obsessed protagonist of Don DeLillo's 1985 novel, *White Noise*. Jack Gladney, professor of Hitler studies, appears as alienated from the numbers and symbols on his medical charts as Bill Chalmers does from the results of his own medical tests. A good fifteen years ahead of Lightman, DeLillo poignantly encapsulates the contradictory facets of a consumption-obsessed culture, one which though temporarily placated through the act of consumption, is, nevertheless, ultimately left to feel spiritually

empty, afraid of both life *and* death. A key scene in *White Noise* occurs when Jack takes his family out shopping and tells his children to buy whatever they want. For a moment, Jack feels complete, a self-appointed emblem of magnanimity amidst a culture in which the act of purchasing is promoted as the highest form of fulfillment available to the individual. But the highly satirical facets of DeLillo's novel in every other respect bring both the consumptive imperative and medical diagnostic techniques under scrutiny, as elements of a world where instrumental reason has gone awry, and in which broader forms of mental engagement with the good life—what some might call *contemplative reason*—are no longer honored, no longer given the space in which to function. The Gladney-family television seems more of a parent to the respective children of Jack and his wife Babette—theirs is a blended family—than either mother or father. A simulated “airborne toxic event” is taken for real and citizens begin to feel “real” symptoms, a Baudrillardian critique of Herculean proportions. The fruits of hard science, technologically-facilitated forms of social organization, govern the day while human free will resembles a dwindling candle in the dark night of instrumental reason. Weber's iron cage is depicted in all its confining horror, a terror alleviated only partially by the humor with which the novelistic brush paints the scene: Jack's colleague, Murray, expends his contemplative energies analyzing the messages contained on toothpaste tubes and cereal boxes in the supermarket; Denise, Gladney's daughter, mumbles car commercials in her sleep. Human thought is invaded on all sides by the imperatives of consumer culture; and somehow, this is obliquely connected to Jack's debilitating fear of death.

Like a great deal of postmodern fiction, however, *White Noise* offers no solutions; it only problematizes the implication of human subjectivity within a paradigm of heavily technologized hyper-rationality, a paradigm that has foreclosed the more imaginative possibilities which might potentially rescue humanity from the widespread alienation felt today. Thus, the question “How to be at home in the world?” is posed in *White Noise* negatively, but not answered. In DeLillo's most recent novel, however, at least the shape of an answer, a dim outline, *is* provided.¹⁰ In *Point Omega* (2010), Richard Elster, a disillusioned Iraq-war consultant for the U.S. government and a former professor, understands all too well the urban-generated angst he must leave behind in moving to the California desert to “reclaim the body from what he called the nausea of news and traffic” (18). The aging Elster sees cities (New York, in particular) for what they are, and perceives the geography of the desert as a much-needed contrast,

¹⁰ In an interview with Alexandra Alter, DeLillo defends the new novel—a slim novelette of a hundred and seventeen pages—as an attempt to describe the shape of things, to “suggest things” rather than explain more fully (n.p.). Such a description of intention matches the nature of the project, as I have already argued elsewhere, a project designed to imagine where humanity is headed in the wake of having exhausted the instrumental uses of reason, and in the wake of having observed the destruction and violence of the natural world and of humanity which they have caused.

a window into the rhythms of the natural world where the cycles of seasons and millennia replace the “endless counting down” (45) of cities that puts so much pressure on the denizens of these highly populated urban centers.

Elster wakes from the hypnotic trance of hyper-capitalism with its fast-paced buying and selling, and begins to see that time in the desert is a different matter: “it’s not time passing, mortal time. There’s none of the usual terror. It’s different here, time is enormous, that’s what I feel here, palpably. Time that precedes us and survives us” (44). What Elster feels, of course, is time as it always was before the iron cage came along to trap the human spirit within increasingly fragmented segments of both time and space. When Jessie, Elster’s adult daughter, asks him what he means by “the usual terror” of cities not felt in the desert, Elster adumbrates in that celebrated style of DeLillo’s in which an artful finger is placed on the pulse of contemporary culture in a manner few other novelists can match:

It’s all embedded, the hours and minutes, words and numbers everywhere, he said, train stations, bus routes, taxi meters, surveillance cameras. It’s all about time, dimwit time, inferior time, people checking watches and other devices, other reminders. This is time draining out of our lives. Cities were built to measure time, to remove time from nature. There’s an endless counting down, he said. When you strip away all the surfaces, when you see into it, what’s left is terror. (45)

Elster’s denunciation of urban time, “dimwit time,” with the constant checking of “watches and other devices,” sounds eerily evocative of the nightmare world of Bill Chalmers’ waking, working life. Even more crucial to my argument is the observation that cities “remove time from nature,” thus removing the metaphors available for making sense of human life. The endless cycle of birth and death, growth and decay, the myriad examples of symbiotic relationships, and the seamless web of connectivity evident in the natural world appear crucial to both human development and the continuation of salutary modes of living. Without these, and locked within paradigms of a mechanistic universe, a kind of neurotic terror sets in, an “embedded” terror bred from the mapping of the human subject according to the mechanistic temporal codes meted out by the urban regime.

The fragmentation of time into ever-smaller increments is both highlighted and parodied in the novel’s opening pages with the description of the (real-world) Douglas Gordon *Psycho* exhibit, a slowing down of the original film into a twenty-four-hour showing. The obsession with the film on the part of an anonymous man is both a satire and a sincere observation about the contemporary obsession with time:

The slightest camera movement was a profound shift in space and time but the camera was not moving now. Anthony Perkins is turning his head. It was like whole numbers. The man could count the gradations in the movement of Anthony Perkins’ head. Anthony Perkins turns his head in five incremental movements rather than one

continuous motion. It was like bricks in a wall, clearly countable, not like the flight of an arrow or a bird. Then again it was not like or unlike anything. Anthony Perkins' head swiveling over time on his long thin neck. (5)

Juxtaposed with Elster's subsequent castigation of the urban sense of time draining out of one's life, this passage acquires greater poignancy as a critique of our contemporary obsession with time. We have completely lost touch with scale—this seems to be DeLillo's message. The desert, with its evident sense of geological time, restores the scale, and with it a sense of sanity easily lost in the “terror” of cities.

What Elster feels in the desert are the rhythms of nature so necessary to both biological and mental health. These rhythms have become all but invisible in a world where the “perceivable” is prescribed, to a large extent, by the paradigms of the hard sciences recuperated by capitalism, where time and matter become increasingly divided into smaller bits until human experience itself ends up entirely disconnected from any unitary sense of itself as part of a larger whole (or even as a “whole” unto itself). Dennis Lee argues for the benefits poetic attention gains from observing the rhythms of nature, implying that what is at stake is an entire epistemology (and perhaps even ontology) endangered by the degradation of such forms of attention in our time. “Acts of rhythmic attention comprise a syntax for knowing the world,” Lee observes (20).¹¹ Later in the same essay, he goes even further: “Acts of rhythmic attention are *a species of natural prayer*” (40, my italics). Herein, I would suggest, lies the basis for an ecospirituality for our own time, a redemptive opportunity to “reclaim the body from the nausea of news and traffic” (DeLillo, *Point Omega* 18) while at the same time honoring—showing *reverence for*—the natural world. Elster's intuitive sense that New York is draining time out of his life prompts him to escape to the desert where acts of rhythmic attention restore a sense of calm to him, an awareness of his implication within a web of connectivity, organic and inorganic alike. Bill Chalmers too experiences a revelation, lying on his bed at home near the end of the novel, recalling his sense of alienation and helplessness in the hospital with doctors fussing over technicalities, the “cell-separator machine” pumping away next to him (the emphasis on “separation” is not to be underappreciated here). In a rage, Chalmers turns away from this divisive modality toward the rhythms of his own breathing, and then the sound of the rain outside which

¹¹ One could go a lot further, in fact, and claim that Lee's maxim is more than either an epistemological or ontological orientation toward the world: it is a *political* one. Ernest Callenbach's *Ecotopia* comes to mind here, which I might have mentioned earlier, as the novel bears profound resemblances to the world of “body time” enjoyed by Lightman's characters in *Einstein's Dreams*. Callenbach's 1975 eco-novel is among the first in a genre to challenge the paradigms of the hard sciences that govern contemporary human behavior and social organization. The fictional setting is the Pacific Northwest of the United States (California, Oregon, Washington State), which has seceded from the mainland U.S. and formed its own political union based on ecological imperatives. Callenbach's characters are very much integrated with the natural world, and, like Lightman's “body-time” adherents, do not look at their watches often; instead, they “pay more attention to things like sunrise and sunset or the tides than to actual hour time” (29) and to their own moods, which are, of course, interconnected with the processes of the natural world.

restores to him (and the reader) a redemptive calm, an acquiescence within the soothing rhythms of the natural world. Most significantly, while he listens to these sounds, he is “unable to measure time or the hours remaining in the night” (369). This reads as a far cry from the novel’s opening and the division of his morning commute to work into minutes between trains and subway stops and the time it takes to reach his office. The terror of cities, in one final affirmative act, is banished by a simple return to the rhythms of the natural world: the meditative attention to breathing, the sound of falling rain.

We are thus brought back full circle to the thought of Paul Shepard, long considered the forefather of the environmental movement for good reason. Shepard’s work traces with astute and insightful scholarship the movement of humanity from hunter-gatherer living to desert dwelling and then to the congested urban lifestyles of today. In *Nature and Madness* (1982), Shepard argues that one of the most significant changes in this transition of habitat has to do with a fundamental change in the “quality of attention” that people are conditioned to employ: “*Quality of attention* means cultural and habitual differences in the style of day-to-day hearing, seeing, smelling, tasting, and touching the surroundings” (21). Shepard cites Jose Ortega y Gasset’s definition of the hunter’s gaze as being vastly different from the villager’s—or today’s urban dweller’s—where an overspecificity of visual clues teaches us to “tune out” our attention more often than we are called upon to “tune in”:

“The hunter,” says Ortega y Gasset, “does not look tranquilly in one determined direction, sure beforehand that the game will pass in front of him. The hunter knows that he does not know what is going to happen ... thus he needs to prepare an attention which does not consist in riveting itself on the presumed but consists precisely in not presuming anything and in avoiding inattentiveness. It is a ‘universal’ attention, which does not inscribe itself on any point and tries to be on all points.” (Ortega y Gasset qtd. in Shepard 22)

While Shepard is focusing here on the instrumental function of the hunter’s style of attention—a necessarily “universal” attention open to appearances of diverse kinds from any direction—what also transpires from this passage is the fostering of a wider attention to all aspects of the natural world. Yet, this is precisely the kind of attention that got lost in the “narrowing effect” of urbanization on the attentive capacity of those who began dwelling in villages and, later, the major cities existing today.

The conclusion to be drawn here is actually an encouraging one. In the heavily urbanized world of contemporary technocracy, the increasing alienation generated through an overreliance on the paradigms of the hard sciences as recuperated by capitalism is, with a heavily punishing irony, pushing us back toward nature, toward a connection with the environment once enjoyed by our ancestors, when hunting and gathering were the common mode of “making a living.” Whether we call it intuition or see it as some atavistic impulse buried deep within our genetic make-up, a form of

ecospirituality is emerging in our time to rectify a deep imbalance—perceived and illustrated by those most sensitive to it, the literary artists of our day. It is no coincidence that celebrated green poet John Burnside titles his most recent collection *The Hunt in the Forest* (2009), after Uccello’s famous fifteenth-century painting. The title poem plays on the notion of the traditional hunt but with a twist—everything is transformed: “greyhound to roebuck, laughter to skin and bone” (2). Where the transmutability of all things is the governing paradigm, it becomes hard to justify a way of doing things in which any kind of violence to the natural world can continue for very long. Burnside’s poem invites us to consider a world of interconnectivity, a world where a wider attentiveness yields up a transformative epistemology that might well constitute not only a syntax for knowing the world, but a syntax for saving it as well.

As aesthetically pleasing as it might be to end on a poetic note, we should return, for a moment, to the fiction under analysis, and to the contesting paradigms of time explored in each book. Such fictions, as argued from the outset, comprise an integral part of the culture which we have created, and contain within them the seeds for a return on the part of the human subject to an integrated mode of being in the world. These fictions, carefully read, mirror back to us the manner in which we might regain entry to “the worlds our bodies knew:” they suggest how we might achieve a more salutary mode of living, one in harmony with the rhythms of the natural world and with the bio-rhythms of the human body. DeLillo’s Elster is able to “reclaim” his body “from the nausea of news and traffic” (18). Lightman’s Bill Chalmers gradually remembers that he has a body, with the awareness of his very breathing becoming a form of meditative reassurance that he is an organic entity within a larger organic whole. And of course, Lightman’s short-story characters who follow “body time” are exemplary figures whose sense of fulfillment serves as a beacon of hope for the many readers only too readily able to identify with those poor characters enslaved in mechanical time.

It is no coincidence that Scott Slovic, celebrated ecocritic and founder of the Association for the Study of Literature and the Environment, touches on our theme in an essay comprising a chapter of his book, *Going Away to Think: Engagement, Retreat, and Ecocritical Responsibility* (2008). In “Out of Time,” Slovic narrates a visit to the “green and misty forests of the Oregon Cascades” to meet with geologist Fred Swanson. “The alarm on my wristwatch rang this morning, as usual,” Slovic writes (189). But he then commences an experiment in “timelessness” by putting it away, hiding it, for the first time ever. He also takes the clock off the wall in his room, attempting to live solely by the rhythms of his environment. Of further coincidence with our theme is that Swanson explains to Slovic that he collects mountains of data that have no immediate relevance but which “later take on meaning” (190) Slovic is learning the life of Ortega Y Gasset’s hunter, learning to pay attention as the hunter does, with a field of awareness wide open and not constrained or mapped according to any *a priori* paradigm proffered

by the hard sciences (or any other source). It is difficult, Slovic writes, to learn to live this way, so accustomed is he to living within the regimented control of mechanical time (190). In the opening pages of his essay, despite his nature-rich environment, Slovic often observes his addiction to mechanical time; “Time still dominated. ‘What time is our reservation for dinner?’ ‘I guess it’s time for the Corvallisites to hit the road.’ I returned to my apartment, read myself to sleep, and plotted my escape from time the following morning, promptly at seven,” Slovic writes, tongue in cheek (190-191).

A few days later, however, Slovic’s commitment to abandon mechanical time begins to pay off. This occurs as he is engaged in using his body to the utmost while climbing. “Eventually,” he writes, “the physical process of straining uphill on the narrow path had its desired effect. I stopped thinking so much—stopped thinking about thinking—and started simply breathing. I tried to figure out what I heard as I walked—the gurgles of rainwater, the occasional whooshing of steep streams, distant caws and cackles of birds, and my own breathing—in and out, in and out” (193). Slovic’s discovery here bears a remarkable similarity to both Richard Elster’s and Bill Chalmers’ reclamation of the body and its natural rhythms in DeLillo’s and Lightman’s narratives. It attests to a modality of being that awaits one if only one can free oneself from the constraints of mechanical time and its recuperation within a capitalist matrix, the “time draining out of our lives” (DeLillo, *Point Omega* 45) as mapped out by the structure of urban society through the human subject. As Slovic aptly illustrates, however, such liberation is not easily won.

Most telling is one of Slovic’s concluding observations, as it opens the door for further inquiry into what we lose by living in a world governed tyrannically by mechanical time. Slovic comes to the understanding that this compulsive habit of constantly checking his wristwatch means “that I am always compartmentalizing my activities, finishing one task and moving on to the next. This is how I get things done, I suppose. But after a week in the woods without my watch, I begin to wonder whether ‘getting things done’ is the same as living” (208). Both DeLillo’s and Lightman’s fictions, I would argue, implicitly ask the same question and more than tentatively provide an answer.

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