Unearthing Urban Nature: Loren Eiseley's Explorations of City and Suburb

For Artifacts and Illuminations: Critical Essays on Loren Eiseley edited by T. Lynch and S. Maher University of Nebraska Press, forthcoming 2012

Long Version (draft 6, completed 5 Jan 2010)

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Loren Eiseley used the compelling landscapes of his native Great Plains as well as the arid West as both setting and subject for his poetic yet scientifically rigorous explorations of evolution, natural history, and the human condition. But Eiseley also mined the urban environment for inspiration as a literary naturalist -- particularly New York City, Philadelphia, and his longtime suburban home in Wynnewood, Pennsylvania. Moreover, the scientist-writer recognized the importance of analyzing the nature close at hand in city and suburb in an rapidly urbanizing world. As Eiseley noted in the foreword to *The Firmament of Time* (1960), he wished "to direct the thought of an increasingly urban populace toward nature and the mystery of human emergence" (v) -- a goal which one might say applies implicitly to all his work, and which is especially relevant to our current time of rapid urbanization in which over fifty percent of the world's population now live in cities.

This essay explores how the physical environment and natural history of city and suburb serve multiple (and sometimes conflicting) functions in Eiseley's prose and poetry. At times Eiseley depicts the city as a dark, fearful wasteland, a place in which the contrast between a benign natural world and an oppressive built environment is rendered in stark terms. In other instances Eiseley finds insight into biological evolution and the human condition in everyday encounters with natural entities -- birds, mammals, insects, even windborne seeds -- during his urban travels by train or on foot. In this regard, contact with and awareness of nature in the city becomes an important means of establishing a sense of place and validating the ecological worth of the urban landscape and the organisms therein, however common or marginal the latter may be. Alternatively, Eiseley fashions the city into a powerful metaphor of humanity's global environmental impact -- a potent symbol and unsettling literal expression of the human species' rampant growth and voracious consumption of natural resources. Yet, Eiseley's city landscape is also a setting haunted by visions of decay and decline, of a crumbling technological civilization succumbing to the inevitable forces of nature reclaiming dominion.

Eiseley's evocations of the urban environment thus reveal some of the contradictions and ambiguities our culture maintains about the character of cities. On one hand is the notion of the

city as the antithesis of nature, a formulation which creates both an illusion of technology-mediated independence from the natural world as well as a profound yet often unfulfilled longing for contact with wildness within the environmentally-impoverished cityscape. On the other hand is the ecological recognition that cities and suburbs are all part of a complex urban ecosystem, a dynamic mosaic in which imperiled nature interacts with humans and their built environment. Eiseley's representations of urban nature and the city landscape not only artfully express these tensions; they also help persuade us that urbanized areas are both important sites of human contact with nature as well as places in which habitat and biodiversity must be harbored and conserved.

City, Country, Wilderness -- Some Cultural Contexts

It's hard to image two landscapes more different, at first glance, that the streets of Manhattan in New York City and the windswept plains of Nebraska. One, the most densely populated part of the biggest of American cities; the other, a thinly-populated rural region. The first, an urban island on the eastern seaboard; the second, a semi-arid agricultural Mecca of grasslands, wheat fields, and small-town communities. Whether we refer to the cultural or natural landscape, Manhattan Island and rural Nebraska could stand as apt representatives for "city" and "country" here in the United States, and the differences sketched here in thumbnail -- as well as the 2,000 or so miles that separate them -- suggest not only that they have little in common, but that they represent two entirely different and incompatible ways for human communities to exist, particularly in their relationships to the natural world.

Yet we know that these seemingly stark contrasts between city and countryside are rooted not just in regionalism and in the socioeconomic differences between urban and rural communities, but also in the cultural assumptions and attitudes about cities, rural environments, and wilderness that run through American and, more generally, Western culture. In these formulations, cities are considered to be fountains of wealth and culture, even as we fear them as sites of pollution, corruption, vice, and physical danger. The cultural geographer John Rennie Short aptly characterizes this ideological tension between pro- and anti-urban currents in American attitudes toward cities: on one hand, a city functions as a "metaphor for social change" and an "incubator for creative thought and the breeding ground for radical action" (41, 43); on the other, cities inspire a "fear of organized insurrection, the explosive riots of the marginalized, the crime and random violence of the dispossessed" and serve as a "symbol of personal fragmentation" (45, 47).

Short traces similar dichotomies in historical and contemporary views of the rural landscape as well as wilderness regions. The rural countryside is simultaneously viewed as an idealized pastoral landscape, especially in the Jeffersonian tradition in which the yeoman farmer living independently off the land is the most free and admired of our citizens; and a place of narrow-minded backwardness and/or cultural conformity (35-39). And the cultural history of wilderness, as both a place and a concept, is perhaps the most complex of these three: alternately a place of fear and danger, a sacred cathedral uninhabited and uncontaminated by humans where visitors might experience a sublime encounter with God's handiwork, or a refuge of biological wildness and romantically remote physical landscapes where one might commune with a seemingly pristine "nature" (Short 5-15).[1]

But even this taxonomy is an oversimplification, as it implies that the city, the country, and the wilderness are three separate things of distinct character and origin. Such is not the case, as Short argues, for

the concepts of wilderness, countryside, and city . . . [are] meso-scale ideas which cover a continuum from the "natural" to built environments, a profession which mirrors the long-term human occupancy of this planet. These three concepts constitute an ensemble, they reference one another; definitions of wilderness relate to the creation of the countryside, attitudes to wilderness implicitly express attitudes to city growth and rustic values have meaning only in comparison with those of the city. Each of the terms resonates with meaning about the other two, each one helps to define the others. (xvi)

William Cronon's influential (and, in some circles, infamous) critique of wilderness as a historical idea, expressed compactly and persuasively in the essay "The Trouble with Wilderness," starts from a similar assumption: that wilderness is not a natural entity or specific type of place, but rather a fluid idea, a cultural construction of immense power and consequence. In wilderness Cronon eventually identifies a

central paradox: wilderness embodies a dualistic vision in which the human is entirely outside the natural. . . . If this is so -- if by definition wilderness leaves no place for human beings save perhaps as contemplative sojourners enjoying their leisurely reverie in God's natural cathedral -- then also by definition it can offer no solution to the environmental and other problems that confront us. (80-81)

For those of us who live in and value urban environments, Cronon's deconstruction of wilderness is both disturbing and liberating. I say disturbing, because as Cronon's analysis suggests, the modern fetish for and commercialization of the "wilderness" can be traced to the late nineteenth and early twentieth centuries, when

[w]ilderness suddenly emerged [in the US] as the landscape of choice for elite tourists, who brought with the strikingly urban ideas of the countryside through which they traveled. For them, wild land was not a site for productive labor and not a permanent home [as it was for farmers and other rural citizens]; rather, it was a place of recreation. ("Trouble" 78)

This transformation of the wilderness from a wild and fearful place existing largely apart from human occupation and impact to a place of recreation for increasingly mobile and urban Americans gives lie to the myth of a pristine wilderness existing in splendid isolation from human impacts. On the other hand, the contingent identity of wilderness suggests that an expanded view of wild nature is entirely possible, one which might even embrace the pockets of nature and constructed green spaces within the built (urban) environment. The upshot of this latter view is that instead of humans placing themselves in opposition to wild nature -- thus exacerbating our already profound detachment from the natural world around us -- a broader, more inclusive view of wilderness allows us to embrace the landscapes close to home, the ones in which we live, work, and experience contact with nature most frequently.

This altered vision of wilderness as well as nature within urban areas is directly, if briefly, addressed by Cronon near the end of his essay, when he argues for a re-evaluation of our longtime focus on "big wilderness" and an embrace of the local and familiar -- and, by extension, the urban.

Our challenge is to stop thinking . . . according to a set of bipolar moral scales in which the human and the non-human, the unnatural and the natural, the fallen and the unfallen, serve as our conceptual map for understanding and valuing the world. Instead, we need to embrace the full continuum of a natural landscape that is also cultural, in which the city, the suburb, the pastoral, and the wild each has its proper place, which we permit ourselves to celebrate without needlessly denigrating the others. . . . [W]e need to discover a common middle ground in which all of these things, from the city to the wilderness, can somehow be encompassed in the word "home." Home, after all, is the place where finally we make our living. It is the place for which we take responsibility, the place we try to sustain so we can pass on what is best in it (and in ourselves) to our children. (89).

While Cronon provided a call to action in the mid-1990s that has been heeded in myriad ways -from the formation of progressive environmental organizations such as Chicago Wilderness that
document, celebrate, and restore the wild/native landscapes within that major urban region to the
flowering of the sub-genre of "urban nature writing" in the work of authors such as Jenny Price,
Lisa Couturier, and Peter Friederici -- the writings of Loren Eiseley from the late 1950s through
the early 1970s serve as a rich literary repository of observations and reflections on the urban
landscape and its relation to ecological processes and evolutionary time. Eiseley thus can be
seen, retrospectively, to have been working through in piecemeal yet undeniably powerful
fashion some of these same core ideas about nature within the urban environment articulated by
Cronon and others from the standpoint of environmental history.

The City as Environment -- A Dark and Fearful Landscape

For those possessing the slightest familiarity with the life and writings of Loren Eiseley, the Great Plains of Nebraska and the Dakotas come quickly to mind as his crucial landscape of both fact and feeling, to use a phrase from the literary critic Carlo Rotella. Besides setting many of his essays and poems within the geography of the American West (sometimes specifically, other times in a less concrete but still evocative way), Eiseley explicitly points to the landscape of the Plains as a defining influence upon his poetic sensibilities and scientific perspective. As he notes in the preface to his 1973 poetry collection, *The Innocent Assassins*:

I . . . was born on the Great Plains and was drawn almost mesmerically into its rougher margins, the Wild Cat Hills and the Badlands, where bone hunting was a way of life. . . . As a young man engaged in such work, my mind was imprinted by the visible evidence of time and change of enormous magnitude. To me time was never a textbook abstraction. Its remnants lay openly about me in arroyos, in the teetering, eroded pinnacles of Toadstool Park, or farther north in the dinosaur beds of Wyoming. Finally, through some strange mental osmosis

these extinct, fragmented creatures merged with and became part of my own identity. (IA 11-12)

This is not just a statement about how a sense of geologic and evolutionary time was developed within Eiseley's young scientific consciousness; it's also a romantic evocation of a particular place and an apt summary of how such landscapes serve as critical settings in so many of Eiseley's essays and poems.

Given the powerful appeal of the western landscapes for Eiseley and his readers, it's rather surprising at first in reviewing his writings to note how often he evokes a far different setting: that of the urban and suburban environment, particularly in Philadelphia, its suburbs, and New York City. Such evocations occur throughout nearly all his works, reflecting the many years that Eiseley lived in Wynnewood, PA, taught at the University of Pennsylvania in Philadelphia, and made frequent trips to New York City for professional engagements or to simply haunt the city's bookstores. Indeed, after living out West for much of the first part of his life, Eiseley later settled into a highly urbanized environment in the Eastern US and shifted his research focus from empirical anthropological field studies to creative writing projects that fused science and literature (beginning with *The Immense Journey* in 1958) as well as scholarly projects in the history of science, particularly evolutionary thought (signaled by 1959's *Darwin's Century*).

This trajectory suggests that Eiseley, as a careful observer of nature and the biota within it (whether living or fossilized), would have left a detailed chronicle of his experiences exploring the urban environment -- and such, in fact, is the case. The section below focuses on one facet of Eiseley's treatment of the city: as an unsettling place of fear and foreboding, a representation of nature that draws upon the American anti-urban tradition of seeing cities as un-natural and even dangerous.

That sense of fear, tempered by an innate and undeniable curiosity, is perhaps no better expressed than in the essay "The Unexpected Universe," the title piece of Eiseley's 1969 essay collection. It begins with a richly-drawn scene within a shadowy urban wasteland and an archetypal Eiseley story of a train ride through an area of "silence and man-made desolation that might well take terrifying material forms." After all, "[t]here is nothing like a stalled train in a marsh to promote such reflections -- particularly if one has been transported just beyond the environs of a great city and set down in some nether world that seems to partake both of nature before man came and of the residue of what will exist after him" (26). Once the trains stops, Eiseley's narrator decides to descend and

explore this curious region. It turned out to be a perpetually burning city dump, contributing its miasmas and choking vapors to the murky sky above the city. Amidst the tended flames of this inferno I approached one of the grimy attendants who was forking over the rubbish. In the background, other shadows, official and unofficial, were similarly engaged. For a moment I had the insubstantial feeling that must exist on the borders of hell, where everything, wavering among heat waves, is transported to another dimension. One could imagine ragged and distorted souls grubbed over by scavengers for what might usefully survive. (27)

This is a near-Gothic scene of swirling imagery ("miasmas and choking vapors") straight out of nineteenth century fiction, where the human presence is manifest as "shadows," liminal beings

existing on the edge of life and the netherworld, outcasts from ordered society that Eiseley portrays as "ragged and distorted souls" and "scavengers." In such a world, outside of but made possible by an unnamed city, Eiseley's narrator tries a jarringly misplaced bit of small talk in order to glean information beyond the obvious as well as to, perhaps, forge some kind of valid human connection in a place where such would seem impossible.

"I suppose you get everything here," I ventured to the grimy attendant. He nodded indifferently and drew a heavy glove across his face. His eyes were red-rimmed from the fire. Perhaps they were red anyhow.

"Know what?" He swept a hand outward toward the flames. "No," I confessed.

"Babies," he growled in my ear. "Even dead babies sometimes turn up. From there." He gestured contemptuously toward the city and hoisted an indistinguishable mass upon his fork. I stepped back from the flare of light, but it was only part of an old radio cabinet. (27-28)

That last gesture by the "grimy attendant" speaks volumes. The hellish evocation of the city as a source of dirt, waste, violence, loss, decay, and hideous pollution is capped by the horrific image of a dead infant thrown away in the trash, all of which can be laid at the feet not of an individual, but of a place -- the urban environment. Eiseley's narrator clearly does not subscribe to that cause-and-effect hypothesis implied by the worker; yet he recognizes the inevitable truth in the man's claim that "'We get it all [at the dump]. . . . Just give it time to travel, we get it all." Consequently, as the essay moves on to consider how "the archaeologist is awake to memories of the dead cultures around us, to our destiny, and to the nature of the universe we profess to inhabit" (28), Eiseley is careful to remind us that he must "speak of these things not as a wise man, with scientific certitude, but from a place outside, in the role, shall we say, of a city-dump philosopher" (28-29).

Another thoughtful evocation of the urban landscape, one which surfaced much earlier in Eiseley's written work, is the short poem "Against Cities," published posthumously in *The Lost Notebooks of Loren Eiseley*. Here Eiseley sets out an anti-urban vision that is less a fearful polemic than an imagistic engagement with the natural world; he expresses a vague regret about and inability to grapple with the notion of "spoiled cities" that, he suggests implicitly, contribute to the impoverishment not just of the landscape but also of the human spirit.

I have envied the hawk's breast enduring the great heaven; all wild wings and the stubbornness of rock yielding no foothold but to eagles.

The serenity of stars over chaos is worthy remembrance and the peace of an old planet forgetting the troubled footsteps of men . . .

I have envied even, at times, the stony security of a snail locked in his narrow house.

But I have pondered and not understood earth that endures spoiled cities in preference to white deserts and the stars. (*Lost* 27)

The city is also a place of sometimes disquieting and even disturbing encounters with urban wildlife, many examples of which are less than pleasant in Eiseley's world. Despite being a student of science and fairly skilled naturalist, Eiseley was aware of the very human fear of the unknown, of the comings and goings of nocturnal creatures; as he puts it in *The Night Country*, "my confession is that of a man with night fear, and it is also the confession of a very large proportion of the human race" (32). Accordingly, he relates the story of "friend of mine [who] took a room in the heart of a great city," only to have a sizeable animal plop onto "his feet as he lay stretched out in bed" (33). Upon lighting a match to find out what kind of creature was paying him a visit, the man was horrified to find "a sewer rat as big as a house cat . . . [sit] up on its haunches and . . . [glare] into the match flame with pink demonic eyes. . . . That sort of thing, you know, is like getting a personal message from the dark. You are apt to remember it a lifetime" (33). We fear the tough city rodent not just because it inspires visceral loathing, but also because it represents all the creatures and forces, real and imaginary, that populate the darkness of the night, out of our sight and cognizance, ever unknowable.

Lastly, an important consequence of modern urban life for Eiseley in the way in which it results in a profound disconnection and alienation from the natural world -- a separation that in not merely an ethical problem, but one evident in how the human species adapts (or fails to adapt) to its physical surroundings. Placed within the broad anthropological context of human social evolution, today's "scientific [and, one might add, urban] civilization in the full sense is an anomaly in world history. . . . Never before have such large masses of people been so totally divorced from the land or the direct processing of their own foodstuffs" (*Invisible* 82). Such a situation is perfectly symbolized for Eiseley in the "tragedy of a single man in the New York blackout in 1965" (82). Trapped in darkness within a skyscraper during the episode, the man lights a candle and attempts to find a stairway leading to an exit. Instead, he accidentally walks through an elevator service door and falls to his death at the bottom of the elevator shaft. Eiseley sees in the event not an instance of individual misfortune, however, but rather a consequence of our diminished observational powers brought on by gradual acculturation to an artificial city environment. The victim "and his inadequate candle had plunged recklessly forward and been swallowed up as neatly by a machine in its tunnel as by a leopard on a dark path" (83).

This view of the city as a site of danger and challenge to survival is not limited to the fate of humans, but also applies to non-human life. Elsewhere in *The Invisible Pyramid*, Eiseley recounts:

One evening, in a drab and heartless area of the metropolis, a windborne milkweed seed circled my head. On impulse I seized the delicate aerial orphan which otherwise would have perished. Its long midwinter voyage seemed too favorable an augury to ignore. Placing the seed in my glove, I took it home into the suburbs and found a field in which to plant it. Of a million seeds blown on a vagrant wind into the city, it alone may survive. (55-56)

On a literal level, the episode illustrates Eiseley's recognition of the harsh conditions presented to plant life within the concrete wilderness of the city, and contrasts this vision with the more

bucolic suburban regions where open fields are still to be found in the 1960s. Yet perhaps most significant about the passage is how it represents a simple form of connection between humans and the urban biota, an indication that, as Eiseley reflects, "I am not yet totally a planet eater and wished that something green might survive" (56). Such a positive note, which represents a dramatic contrast to the previous examples cited above, also proves to be an apt segue to Eiseley's capacity for finding and observing the biodiversity and ecological processes within the urban landscape.

Wilderness in the City -- Exploring Urban and Suburban Nature

A contemporary of Eiseley's and one of his many admirers was the Chicago writer Leonard Dubkin, a journalist and self-taught naturalist who until his death in 1972 explored everyday nature within parks and forest preserves, empty lots, the industrialized riverfront, patches of open land between housing developments, tenement slums, dank underground passages, railroad embankments, and sidewalk cracks. From his observations of these places Dubkin created a fascinating discourse of urban nature that is singular in Chicago's literary history as well as relevant to contemporary efforts in re-imagining how nature functions (and might flourish) in the environment of cities. Dubkin produced a string of meditative and observation-rich books on urban nature, broadly defined, starting with *The Murmur of Wings* in 1944 and ending in 1972 with *My Secret Places*. He also maintained friendships and regular correspondence with important writers, naturalists, and scientists of his day, including Ben Hecht, Nelson Algren, Rachel Carson, and -- last but hardly least -- Loren Eiseley, who delivered the 1963 commencement address at Bryn Mawr for Dubkin's daughter's graduation, the occasion that marked the first time the two men met in person (Yearwood).

In fact, it is Eiseley who penned what might be the most eloquent tribute to Dubkin's skill and significance as a city-based naturalist-writer. In a 1972 letter to Dubkin he included a carbon copy of a draft dust-jacket blurb for Dubkin's final book, *My Secret Places*, a compact bit of praise that ironically was never published:

Mr. Dubkin has no parallel as the naturalist of the city and its environs. An able and expert journalist, he has the heart and eye of a child. It is this which convinces those of us lost in adult affairs that there is still truly a hidden place between the last billboard and the viaduct, a place as worthy of preservation as a forest. In such spots a rare human gentleness can sometimes be nurtured. Leonard Dubkin is a graduate of that kind of innocent back lot school which Americans are close to losing forever. His work is not only readable, it is utterly sincere.

Eiseley recognized not just the singularity of Dubkin's unique perspective and literary ability but also the value of Dubkin's lifelong efforts to bring the neglected yet fascinating manifestations of urban nature to light. Even more importantly, he ever-so-briefly yet explicitly acknowledges the importance of the remnant natural areas in the urban landscape, despite their dramatic contrast to the more charismatic images of mountains, canyons, or mature forests -- places associated with wilderness rather than the city.

In fact, this recognition of Eiseley's figures significantly throughout his work, and while not a relentlessly dominant focus as it was for Dubkin, the urban and suburban landscape indeed

provide Eiseley with plenty of rhetorical space in which to muse upon the value of biodiversity, the wonder of individual species' adaptations to the built environment, and the complexity (and often mystery) of ecological processes. A simple yet beautiful example of this approach to urban natural history is an unpublished observation dated December 16, 1955, just two years before the appearance of his breakthrough book, *The Immense Journey*. In this case, Eiseley's observations center on the specific behavioral adaptations of that ubiquitous and much-maligned city bird, the pigeon, and its ascribed cleverness in exploiting the potential for food and shelter in the urban environment.

Looking out of a sixteenth-floor window of the Barbizon-Plaza Hotel in New York, I saw several pigeons turning round and round, apparently warming themselves in the warm air currents emanating from some chimneys or air vents in a roof immediately below me. Looking closer I discovered several such chimneys emerging from the wall on the side nearest to me. On each chimney sat a pigeon, his little bottom carefully tucked over the warmth. . . .

Later, descending to the street, I found clouds of pigeons in places where they were not to be found in rush hours. They were picking up bits of crust and other garbage in front of bars and grocery stores before the increasing traffic of the morning would force them aloft again. Obviously they have the ecology of the city well worked out.

There could be added here the brave way these small birds seek their living and survive. No mean feat. (*Lost* 95)

On other occasions, such as this scribbling from September of 1958, Eiseley's ruminations on urban wildlife are less about scientific analysis and speculation, and more along the lines of philosophical reflections on the human condition as put into relief by the simple and commonplace actions of animals:

A few days ago, passing through one of the less frequented corridors of Pennsylvania Station, I heard the wonderful loud trilling of a single cricket apparently all alone in this great rumbling place. Was he calling for a female in his loneliness or merely singing an autumn song to himself? Why cannot any man do this in his machine-raucous society -- trill out anyhow, sing to himself if to no one else, purr in the autumn sun? If he cannot love one thing, then love all, leaf, brick, and autumn spider. (*Lost* 116)

While many more examples could be cited of Eiseley's engagement with and exploration of various aspects of urban nature, one essay from *The Night Country* in particular seems to encapsulate multiple dimensions of his distinctive way of seeing and drawing insight from life within the city landscape. "The Brown Wasps" is the final essay in that volume, and thus serves as both a coda to the book and a melancholy meditation on the capacity of memory to create a sense of place as well as a feeling of belonging -- a capacity that Eiseley traces not just in humans, whether himself or the huddled poor who inhabit the corners of railway station waiting rooms, but also in animals. Yet it is the essay's repeated invocation of the ever-changing qualities of urban ecosystems and the effects they have on the organisms present within them that endow it with special significance in Eiseley's oeuvre and suggest that "[i]t is the place that

matters, the place at the heart of things. . . . We cling to a time and a place because without them man is lost, not only man but life" (229).

"The Brown Wasps" is composed of five parts (though they merge seamlessly, as Eiseley's essays tend to do), each with its own setting and protagonist: the first section describes "a certain element of the abandoned poor" who find temporary refuge "in the waiting room of one of the great Eastern stations" and who remind Eiseley of brown wasps that revisit an abandoned hive in winter, "the hum of the spring hive still resound[ing] faintly in their sodden tissues" (Night 227). The second shifts the scene to a suburban field, a small open patch of ground near a shopping center that by the evidence of a developer's sign is also destined for the bulldozer, where Eiseley spies a mouse running through the grass. The third scene follows said mouse from field to Eiseley's own apartment, where (or so he imagines) it finds shelter not in the typical haunts of the seasoned house mouse but in the root system of a potted fern within which it carves out a burrow. Eiseley next shifts his focus to that ubiquitous urban bird, the pigeon, in the ecological context of the abandoned Philadelphia elevated train system; and, finally, he ends the essay by breaking with the urban setting and telling a story of journey home to an unnamed Nebraska town to find the tree he had planted as a youth with his father, one that had grown tall in his imagination over the last 60 years but had in fact had been cut down long ago, after his departure.

Eiseley's explicit objective in "The Brown Wasps" is not to provide a systematic urban natural history; his point, as is often the case in his writings, is much more philosophical and conjectural, steeped though it is in concrete imagery and physical observations of the landscape and its biota. Yet it is fascinating how, much like his contemporary Leonard Dubkin, Eiseley locates four out of the five sections of the essay in urban contexts, only one of which is an obviously "natural" ecosystem: the suburban field. The remainder of the settings -- train station waiting room, apartment interior, elevated train station / streetscape -- are not at all typical places for your garden-variety literary naturalist to seek inspiration. However, as Eiseley's backdrops they harbor inhabitants that reward careful observation and they illustrate the functions of ecosystems with clarity and force, if not in minute detail. They also underscore the constant human presence and mark upon the urban landscape -- sometimes as something to be mourned, as with the impending devastation of an open field in Eiseley's suburb; other times as a way to merely place the human alongside the natural, with the implicit suggestion that we are not separate from the landscape we have reshaped and transformed, but are an intimate, interdependent part of it.

In the fourth section of the essay, Eiseley describes how a new subway system's construction renders the old elevated commuter trains obsolete, but in the process of one transportation technology displacing another, a ecological community is affected -- one that includes both humans and beasts alike.

This ancient El with its barnlike stations containing nut-vending machines and scattered food scraps has, for generations, been the favorite feeding ground of flocks of pigeons... Hundreds of pigeons were dependent upon the system... Probably very few among the waiting people who tossed a crumb to an eager pigeon realized that this El was like a food-bearing river, and that the life which haunted its banks was dependent upon the running of the trains with their human freight. (232)

The river metaphor is an important one to Eiseley, for it evokes the cycles of time and the close interdependency between species and a particular landscape, just as the rivers of the Great Plains (such as the Platte) sustain a wild profusion of life within their waters and along their margins. The river of the El, though, is made of train traffic and (more to the point) people: a flow of humans that arrives in fits and starts; dispenses nutrients to the expectant pigeons, whether in the form of gifts or waste; and stops with shocking abruptness, "like a great river subsiding suddenly into desert sands" (232).

Since Eiseley's theme is place memory, the innate longing of many creatures (including ourselves) "for a way of life or a locality that has long been cherished" (233), he recounts the return of the station's flock after the structure's abandonment; indeed, it is the activity of demolition that attracts them back to the station, presumably with hopes of getting food from a restored river of humanity. Only when the station is reduced to rubble do they leave the scene. But the acknowledgment of a highly artificial yet somehow functional urban ecosystem is the salient feature of this passage: no, this is no substitute of high-quality open space, or even a low-quality parkland; yet it aptly demonstrates the cause-and-effect connection between human action and the status of urban wildlife and underscores the dramatic impacts that changes in the built environment have upon the natural environment. Human decision-making, "The Brown Wasps" suggests, cannot exist in splendid isolation within an urban context -- one action affects (or causes) another, in what can be at times ever-increasing complexity.

To be sure, Eiseley's stories of urban wildlife and analyses of city ecosystems, large and small, are not devoted to the cataloguing of native species or the description of ecological restoration efforts -- to name just two contemporary items with the broad agenda of urban ecology. Eiseley's project instead seems to be more humanistic than scientific, in the sense that his observations of commonplace species in everyday contexts highlight the process of adaptation (by which organisms find food and establish a niche in the built environment) and the amazing resilience with which a city's nonhuman denizens make their ecological living amidst steel and concrete.

The City as Place of Environmental Critique

Today's urban ecologists point out what might be called the paradox of cities: from the standpoint of environmental sustainability, the Earth's urban areas are responsible for the bulk of human consumption (of energy and resources) as well as waste production. Given the accelerating rate of urbanization begun in the twentieth century and expected to continue well into the twenty-first, this fact will likely become even more problematic (McNeill 269-95). Yet at the same time, cities -- by virtue of their population density, vertical structure, public transportation networks, and creative human capital -- are also at the vanguard of sustainability initiatives, such as energy conservation and greenhouse gas emissions reduction, and thus have been identified as part of a potential solution as well as a persistent problem (Grimm et al. 756).

Loren Eiseley seems to have recognized this long before the term "sustainability" became commonplace, yet alone identified with urban environments. In fact, the fundamental tenets of Eiseley's environmental ethic are most forcefully expressed in the essay collection in which he mentions cities most frequently, 1970's *The Invisible Pyramid* (Bryson 384-6). For Eiseley, urban areas are potent symbols and literal expressions of human consumption and the alteration of nature; but they are also places where the limits of technology and the impermanence of human society's constructions are visible. This long-range view of urbanization is enabled, one

might suggest, by Eiseley's anthropological perspective, which views history along a temporal scale of thousands and millions of years, rather than years or decades.

Eiseley's critique of the urban impact on biodiversity and habitat occurs along a continuum of intensity, from rueful meditations on the harsh challenges cities pose for plants and animals (and the remarkable adaptations that sometimes result from this) to passionate denunciations of humanity's desecration of the landscape through pollution and urban development. An example of the former is this excerpt from the poem "Desperate I Walked" from *The Innocent Assassins*:

In the November light on the drab thoroughfare it passed me, silvering the grey day with its tiny shimmering perfection, a small planet,

life seed, thistledown, journeying the wrong way toward the city's heart.

* * *

I took it gently from the air, walking onward for blocks, seeking
a place where it could bed for the winter and be given a chance to grow.

I had a home once where such things happened by nature without human intervention.

Here I walked by car lots, highways,
I walked by pruned hedges, by formal gardens.
I knew if I dropped the seed its life would perish either at once or be quickly weeded

from all the delicate, suburban gardens. (25)

At first glance this poem strikes a familiar chord, given Eiseley's previous use of this image of a wayward seed (*Invisible* 55-6, discussed above). Here, though, the narrator is a rescuer of sorts, an empathetic naturalist helping a single seed avoid a fate of falling upon infertile ground in the harsh environs of the city or the deceptively verdant yet still dangerous gardens and lawns of suburbia. Given the prolific seed production of plants using windborne dispersion mechanisms, such a rescue is symbolic rather than necessary, as the vast majority of any plants fail to find purchase and take root under normal circumstances. Eiseley's point, however, is two-fold: the urban environment is a challenge for native species not just because of a lack of exposed habitat (here, decent soil and open space) but also because the human denizens of that environment strive to eliminate unplanned irruptions of life in their efforts to sculpt and maintain their variously contrived landscapes.

A much harder-hitting and more radical environmental critique, though, is offered in the essay "The World Eaters" from *The Invisible Pyramid*, in which the human species is characterized as a "planet virus," a metaphor that begins in the shadowy context of a dream-state:

It came to me in the night, in the midst of a bad dream, that perhaps man, like the blight descending on a fruit, is by nature a parasite, a spore bearer, a world eater.

The slime molds are the only creatures on the planet that share the ways of man from his individual pioneer phase to his final immersion in great cities. Under the microscope one can see the mold amoebas streaming to their meeting places, and no one would call them human. Nevertheless, magnified many thousand times and observed from the air, their habits would appear close to our own. This is because, when their microscopic frontier is gone, as it quickly is, the single amoeboid frontiersmen swarm into concentrated aggregations. At the last they thrust up overtoppling spore palaces, like city skyscrapers. The rupture of these vesicles may disseminate the living spores as far away proportionately as man's journey to the moon. (53)

On one level, the figurative language in this passage tests our ability to grant Eiseley's reasoning credibility. Unlike, say, the practice of studying primate behavior for clues about early human social interaction, the comparison of slime molds and humans is an imaginative stretch that crosses gaps of anatomical difference and of time itself: the amoeba-to-aggregate phase occurs in minutes and hours with the slime mold, while the "pioneer phase" of humanity Eiseley refers to is most likely the period of small, dispersed bands of early hunter-gatherers. Yet the metaphor is undeniably effective: the use of "pioneer" and "frontier," in an American context, simultaneously evokes the westward expansion across the continent -- a process in which environmental resources were consumed rapidly and, for the most part, without check or balance.

Most significant is the repeated evocation of cities in this passage. On one hand, Eiseley is taking a broad view by implicating technology -- and by extension, science -- in the rapid expansion of humanity on the globe through references to "great cities," "skyscrapers," and the recent "journey to the moon." On the other, cities are not just a convenient metaphor for human overpopulation and technology hubris; they are most certainly ecological problems of the first magnitude, for they are humankind's most dramatic and large-scale representation of the technological alteration of the natural environment and the excessive consumption of natural resources, both within the city proper and throughout its vast rural hinterlands. [2]

As in the microscopic instance of the slime molds, the movement into the urban aggregations is intensified. The most technically advanced peoples will naturally consume the lion's share of the earth's resources. Thus the United States as present, representing some six percent of the world's population, consumes over thirty-four percent of its energy and twenty-nine percent of its steel. Over a billion pounds of trash are spewed over the landscape in a single year. In these few elementary facts, which are capable of endless multiplication, one can see the shape of the future growing -- the future of a plant virus *Homo sapiens* as he assumes in his technological phase what threatens to be his final role. (*Invisible* 63-4)

This somewhat abstract and statistics-minded denunciation of human profligacy is eye-catching, but as a later passage in *The Invisible Pyramid* makes clear, it's not just urbanization that's the problem -- the underlying issue is even broader and more problematic:

In simple terms, the rise of a scientific society means a society of constant expectations directed toward the oncoming future. What we have is always

second best, what we expect to have is "progress." What we seek, in the end, is Utopia. In the endless pursuit of the future we have ended by engaging to destroy the planet. (104-5)

As is often the case, Eiseley here moves quickly from the macro to the micro, and in the process makes a compelling argument about the ways in which cities don't just consume tabulated resources and produce pollution, but transform land -- acre by acre, empty lot by empty lot. In this instance Eiseley's storytelling is knife-edge sharp, and he looks no further than the landscape of his suburban home for inspiration. In the essay "Man in the Autumn Light," Eiseley recounts a winter night-time walk he took through "a remaining fragment of woodland" near his suburban home. Preserved for many years by virtue of being part of a vast estate -- one of the common mechanisms for the preservation of open space in urban areas in America -- the woodland's continued presence pleases Eiseley and inspires him to ask whether "man still, after all his ravages, possess[es] some fear of the midnight forest or some unconscious reverence toward the source of his origins" (128). But then, coming to a clearing in the woods and the sudden observation that the opening was not natural but "artificial, a swath slashed by instruments of war," the narrator realizes that his brief reflection on the possibility of human restraint and kinship with the natural world is an illusion: "I had taken the thin screen remaining from the original wood for reality. Only the snow, only the tiny footprints of the last surviving wood creatures, had led me to this unmasking. Behind the little stand of trees the world eaters had all the time been assiduously at work" (130).

This martial metaphor applied to the description of urban development and sprawl is a recurring feature of in Eiseley's later prose; it crops up in *The Unexpected Universe* when he "peer[s] hopelessly upon the relentless advance of suburban housing" (196), and it takes on particular intensity in the essay "The Last Magician" from *The Invisible Pyramid*, in which Eiseley creates an indelible image of the urban organism seen from a God's-eye perspective:

Not long ago I chanced to fly over a forested section of country which, in my youth, was still an unfrequented wilderness. Across it now suburbia was spreading. Below, like the fungus upon a fruit, I could see the radiating lines of transport gouged through the naked earth. From far up in the wandering air one could see the lines stretching over the horizon. They led to cities clothed in an unmoving haze of smog. From my remote, abstract position in the clouds I could gaze upon all below and watch the incipient illness as it spread with all its slimy tendrils through the watershed. (151)

Multiple metaphors are at work here: overlaid upon an evocation of nostalgia for the lost landscape of his youth are Eiseley's observations of the fungal advance of suburban development, which he characterizes not as a benign or neutral process but as an "illness," a disease that undercuts the integrity and health of both earth and water (both evoked in one fell swoop by the word "watershed"). One cannot escape the conclusion that Eiseley, an unabashed lover of the cultural vitality of cities, nonetheless sees them in an ecological context as a pathological blight.

And yet . . . while these horrifyingly realizations are sufficient to convince Eiseley that humanity "threatens to destroy the earth," his alarm is tempered by certainty that cities -- and the science and technology of human culture that makes them possible -- are but temporary

constructions in the scope of geologic time. Eiseley does not harbor a positive vision of the concrete ways in which urban areas might be re-envisioned and re-engineered to become more sustainable, a line of thinking which began to emerge in the mid-1990s, a generation after his death, and which characterizes one of the leading edges of the sustainability movement today in the early twenty-first century. [3] His ecological consciousness is more along the lines of Barry Commoner's and Paul Ehrlich's warnings in the 1960s about the danger of corrupting and damaging "spaceship earth" (albeit with less inflammatory rhetoric), tempered by an awareness traceable in many of his works that nature shall someday overtake and reclaim the handiworks of humankind.[4]

A powerful expression of this latter idea is projected by the imagery in "And As for Man," from *The Innocent Assassins*. The poem's occasion, as in so many of Eiseley's compositions, is a train ride out of New York during which, after leaving the station and gazing at a retaining wall that along the tracks, Eiseley spots some hardy plants growing within a tableau of harsh inhospitality:

Far up is a small ledge, sowed by the wind with ragweed --

ragweed, beggar's-tick, foxtail, all that clings where man has his dominion and nothing, nothing is ever intended to grow, and supposedly nothing can.

Man would scythe them down if he could;

man would poison them if he could reach so high, but they live, incredibly they live, between the tunnel's darkness and the sky.

This is how I shall remember New York forever: not by the towers touching the evening star, not by the lights in windows, not by lonely and driven men shall I recall that city, but by the weeds

undaunted on sheer stone and waiting,

showering their seed and waiting,

waiting for the last train to enter the tunnel,

waiting

for the last voice to speak on the telephonic track. They will start to climb then, they will have had enough of waiting,

and as for man, he will not be coming back. (74)

Such is the hubris of humanity in our perceived dominion over all of nature; the city represents that idea of nature's conquest dramatically and brilliantly. But just as pioneer species of plants manage to find a foothold in the tightest sidewalk crack, so too does Eiseley tenaciously cling to the notion that for all our spires and spectacles -- and despite our propensity for polluting the air we breathe and the water we drink, heedless of the consequences -- nature itself shall reclaim its territory, even displace us, given time enough. But his articulation of this vision is less rueful than gently hopeful -- for though the anthropologist in him knows that we are a young species, and that with many uncertainties ahead no guarantee exists for our survival, there is some comfort to be had in the expectation that life, in all its other forms, will indeed prevail.

Conclusion

Today, in 2010, urban nature in all its various forms -- waterways, city parks, forest preserves, wetlands, green rooftops, community gardens, landscapes public spaces, city-based farms -- is more important than ever before, as the world rapidly urbanizes and cities strive to make themselves more environmentally sustainable. The desire to regain meaningful contact with nature and the recognition that this can happen not just in remote wilderness spaces but also within the suburban and urban landscape are transforming the cultural constructions of "wilderness" and "city." While scientists study the ecological processes of urban systems, artists and writers plumb the significance of nature in the city, from protected pockets of native habitat that have survived decades of development to the various manifestations of engineered nature and what those suggest about our relationship to the world around us. [5]

Like anything else, all this empirical and creative work has important antecedents, and the work of Loren Eiseley is a heretofore unrecognized yet significant source of observations on and meditations about the urban environment. Eiseley's literary-scientific engagement with the suburban and urban landscape from the 1950s through the early 1970s illustrates the fractured notion of cities as antithetical to the natural, yet dependent upon and intimately bound up with ecological processes. While Eiseley at times bemoans the city as a place of environmental poverty and degradation, he also emphasizes and even celebrates the persistence and adaptability of life within the often harsh cityscape. Moreover, in his ruminations on the human condition and limits of science in an era when the modern American ecological conscience was beginning to take shape, Eiseley uses the city as a vehicle for articulating an environmental ethic -- one that critiques the ways in which technological society expands, consumes, and pollutes while still acknowledging the impermanence of humanity's reshaping of the earth as well as nature's power to reclaim, over time, the built environment.

Notes

- 1. Also see the first section of William Cronon's essay, "The Trouble with Wilderness," pp. 69-77.
- 2. The countryside is connected to urban economic and ecological processes in myriad ways, as William Cronon has demonstrated in his study of Chicago, *Nature's Metropolis*. Such are the power of such connections, Cronon argues, that the separation between them is an artificial construct reflecting our ideas about the nature of city and country more than material reality. "Chicago had become 'urban,' spawning belching smokestacks and crowded streets, at the same time that the lands around it became 'rural,' yielding not grass and red-winged blackbirds but wheat, corn, and hogs. Chicago's merchants and workers had built their warehouses and factories in the same decades that farmers had plowed up the prairie sod and lumberjacks had cut the great pine trees of the north woods. City and country shared a common past, and had fundamentally reshaped each other. Neither was as 'natural' or 'unnatural' as it appeared" (7-8).
- 3. For a comprehensive and accessible introduction to the many dimensions of urban sustainability, consult *The Sustainable Development Reader*, edited by Stephen Wheeler and Timothy Beatley.
- 4. In *The Immense Journey*, Eiseley imagines pigeons "taking over the spires of Manhattan" (167); in *The Night Country*, he relates a mysterious anecdote about "walking in the ruins of the city" on which he visualizes the death of a city through an archeologist's eye while, incongruously, shopping with his wife (153).
- 5. A definitive example of an fully integrated, interdisciplinary study of a major urban area is the Baltimore Ecosystem Study, part of a National Science Foundation-funded initiative to study long-term ecological processes in a representative range of the earth's ecosystems. Recent explorations of the American urban landscape from the standpoint of the arts and humanities include Michael Bennett's essay "From Wide Open Spaces to Metropolitan Places: The Urban Challenge to Ecocriticism" (cultural/literary criticism), H. Rutherford Platt's *The Humane Metropolis* (urban history and planning), Terrell Dixon's *City Wilds: Essays and Stories about Urban Nature* (urban nature writing), Terry Evans' *Revealing Chicago* (photography), and John Tallmadge's *The Cincinnati Arch* (memoir/urban ecology).

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