



Miranda

Revue pluridisciplinaire du monde anglophone /
Multidisciplinary peer-reviewed journal on the English-
speaking world

13 | 2016

Thomas Spence and his Legacy: Bicentennial
Perspectives

Loren Eiseley's anticipation of the Anthropocene era in his writings on humanity and animality

QianQian Cheng



Electronic version

URL: <http://journals.openedition.org/miranda/9687>

DOI: 10.4000/miranda.9687

ISSN: 2108-6559

Publisher

Université Toulouse - Jean Jaurès

Electronic reference

QianQian Cheng, "Loren Eiseley's anticipation of the Anthropocene era in his writings on humanity and animality", *Miranda* [Online], 13 | 2016, Online since 23 November 2016, connection on 16 February 2021. URL: <http://journals.openedition.org/miranda/9687> ; DOI: <https://doi.org/10.4000/miranda.9687>

This text was automatically generated on 16 February 2021.



Miranda is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

Loren Eiseley's anticipation of the Anthropocene era in his writings on humanity and animality

QianQian Cheng

- ¹ Loren Eiseley speaks of his scientific profession as archeologist and anthropologist humbly as that of “a bone hunter,” yet his writings describe his field discoveries with poetic language and they open onto philosophical reflections on human and nature. Eiseley’s attention to other-than-human life forms, both living and extinct, allows him to see what most scientists of his generation could not see. His fossil findings prompt a reflection on the differences between humans and other animals. He believes man has fallen out of nature, and that he now destroys the green world that man as animal depends on but which he has forgotten. It may seem that Eiseley is reinforcing the “modern” idea (amply discussed by Bruno Latour) of the split between nature and culture. However, I hope to show how his representation of himself as “changeling” calls into question the binary split. Along with other writings, his poem “The Changelings” suggests that he recognizes his own animality and reaffirms his kinship with other animals. In contemplating the animal origin of humans, he finds that the big leap on man’s evolutionary road is the development of his brain. This hidden weapon has allowed humans to avoid extinction when many other complex forms of life have been eliminated. Still, Eiseley feels that man’s brain also puts him in a dangerous position because it has enabled him to become a “world eater” and “space leaper.” He understands that human interventions into Earth’s natural order are causing the deaths and extinctions of other-than-human species and ultimately putting our own species at risk of extinction. In this sense, Eiseley anticipates the 21st century realization that we have entered the Anthropocene era¹.
- ² Claiming that humans have abandoned first nature² to build their cultural world, Eiseley resists the tendency to place humanity at the center stage of life, deploring how the noisy wheels of our scientific and technical civilization roll recklessly over the paths crossed by other animals. Although the term “Anthropocene” was not coined

until after his death, Eiseley recognized that the human impact on the planet had altered it profoundly. In this he anticipates the scientific experts and commentators who promulgate this idea, in particular through his concern with species extinction and his prediction of humanity's extinction. He writes about the rare butterfly visiting the flowerpot in his urban apartment and the tree existing only in his childhood memory in order to suggest that the environment men have created is no longer a true home. He advocates a return to the green world of nature that he remembers from his childhood. The question is whether this return means a regression—a dream of moving backward in time to reach a place that no longer exists.

- 3 In “The Borders between Us’ : Loren Eiseley’s Eco-poetics” Tom Lynch suggests that Eiseley’s work anticipates the heightened environmental awareness of the 21st century. He argues that Eiseley “was an early practitioner of what we now call ecopoetry” (Lynch 127). Like the ecopoets, Eiseley recognizes that “over the past few centuries nature has been increasingly injured by human activity” (Lynch 129). Ecopoets are skeptical of the achievements of modern science and, indeed, Eiseley critiques modern scientific civilization from the perspective of both a scientist and a poet. Moreover, ecopoets show sympathy with non-humans. As Lynch points out, Eiseley’s “evolutionary consciousness can attenuate the seemingly insurmountable border that exists between humans and other animals” (Lynch 136). In this essay, I emphasize Eiseley’s empathy with other animals especially the wildlife cast out by modern human society. I also focus on Eiseley’s meditation on man’s animal past and man’s fall from nature to culture. Like Lynch, I see Eiseley as longing for a return to the time when humans and animals were not so separate ; however, I question whether or not this return can be viewed as regressive.

The fall out of first nature

- 4 In Eiseley’s perception humans are “double evolutionary creatures” in whose development “two streams of evolution have met and merged : the biological and cultural.” Man lives between a mental and a material world : “he has come part way into an intangible realm determined by his own dreams” (NC 129).³ With the development of the human brain, man “had sloughed instinct away for a new interior world of consciousness” (FT 124). In this image the adaptation seems as natural as a snake sloughing off its old skin and changing it for a new one, but the consequences are far-reaching. Eiseley characterizes this evolutionary transition as a fall from innocence into a more problematic state of experience : “man fell from the grace of instinct into a confused and troubled cultural realm beyond nature” (UU 136). For Eiseley, man has walked away from his instinctive world into the world of custom. In so doing he has alienated himself from the natural world : “other beasts than man live within nature. Only man has carelessly turned the abstraction round and round upon his tongue and found fault with every definition, found himself in the end looking endlessly outside of nature toward something invisible to any eye but his own and indeed not surely to be glimpsed by him—only to be glimpsed or guessed or pondered upon” (LN 154). Man makes an “abstraction” of the natural world and abandons it for one of his own making, “something invisible” and intangible.
- 5 The consequences of this fall from nature are nightmarish for Eiseley. Refusing optimistic scenarios of civilization’s progress, he sees “the coming of man” as setting in

motion “a vast black whirlpool spinning faster and faster, consuming flesh, stones, soil, minerals, sucking down the lightning, wrenching power from the atom, until the ancient sounds of nature are drowned in the cacophony of something which is no longer nature” (FT 123-4). Applying an extended poetic metaphor, Eiseley introduces man as an element of nature (“a whirlpool”) that paradoxically destroys nature, for he greedily consumes too much and restlessly draws power from nature, unleashing forces of destruction that are finally unnatural. Playing with that paradox, Eiseley asserts that man uses “reason, his new attribute, to remake...a substitute for the lost instinctive world of nature. He was in fact, creating another nature” (FT 124)⁴. Perhaps this hesitation between the natural and the unnatural is Eiseley’s way of leaving open just a crack in the door that man closed when he fell out of his instinctive animal world.

- 6 In English mythology “changeling” refers to a fairy child exchanged for a human child. In folklore the myth of the changeling is usually used to explain unexplainable childhood strangeness that might now be classified as developmental disabilities. Eiseley reintroduces this term to the world of modern science, fertilizing it with his imagination. He calls humans changelings because they are out of place in the natural world: “Unlike the creatures who move within visible nature and are indeed shaped by that nature, man resembles the changeling of medieval fairy tales. He has suffered an exchange in the safe cradle of nature, for his earlier instinctive self” (BMD 65). Inverting the term’s conventional definition of a human child exchanged with a non-human child, Eiseley gives it new meaning in his texts. For him, man “resembles the changeling.” Man’s strangeness comes from the fact that a human “demands, because of his immature emergence into the world, a lengthened and protected childhood. Without prolonged familial attendance he would not survive” (ST 194). Man “is a pedomorph, a creature with an extended childhood” (IJ 93). He needs this extended childhood in part to educate him out of nature and into human culture.
- 7 In his poem “The Changelings” Eiseley expresses his thoughts about himself as the changeling of Mother Nature. The very first question he discusses is about the animality in humanity. Eiseley’s speaker is a curious student who tries to understand mankind and his animal past: “to see the beast in man, / how much of beast persisted” (NA 19). He is interested in or rather haunted by man’s animal origins. In tracing his own and mankind’s origin, he tries various methods, examining animal masks (fox masks, wolf masks), cave paintings, “scratchings traced / on cave walls / or from dim ethnologies,” as well as the skulls conserved in museums, making “phrenological attempts” to see the beast in man (NA 19). These ancient artifacts point back to a time when man was still at home in the natural world. However, man’s world is no longer natural—the landscape the speaker sees is “blighted/ formalized/ pollution-filled” (NA 21).
- 8 In *The Invisible Pyramid*, Eiseley chooses a humble metaphor to critique the human activity that menaces the planet. He draws an analogy between the work of slime mold and that of humans to describe the destructive processes of industrialization and urbanization:

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 overtopping 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. (IP 53)

- 9 With this reductive comparison of humans to “slime molds,” Eiseley tries to shock his readers into an awareness of how modern man has colonized the biosphere. The imagery is especially adapted to the American context with the mention of the frontier and the skyscrapers. Buildings that are normally described as impressive or breathtaking marvels of modernity are spore palaces in Eiseley's analogy. An advanced national technological project like the space program becomes in Eiseley's words like a cluster of living spores disseminating outwards. With shocking effect, Eiseley criticizes the way that modern men consume nature in an unacceptable manner and transform the planet into an anthropocentric built environment. Though it is a simple analogy, it is devastatingly ironic in its critique of modern science and technology.
- 10 In its forward march science tries to exert control not only over the earth but also all the other planets ; modern scientists explore outer-space as if they could conquer the void : “This effort has become the primary obsession of the great continental powers. Into the organization of this endeavor has gone an outpouring of wealth and inventive genius so vast that it constitutes a public sacrifice equivalent in terms of relative wealth to the building of the Great Pyramid at Giza almost five thousand years ago. Indeed, there is a sense in which modern science is involved in the construction of just such a pyramid, though an invisible one” (IP 87). Eiseley criticizes the American space program because he believes it sacrifices too much for too little, and exists simply to prove humans' power. Like the dead pharaohs of Egypt, modern men construct costly though invisible monuments to demonstrate their mastery. In his essays, he repeatedly argues that his age's outer space explorations are unreasonable while there are more urgent problems on earth waiting to be solved. He dislikes the fact that “billions of dollars were being devoured in the space effort, while at the same time an affluent civilization was consuming its resources at an ever-increasing rate” (IP 69). With their reliance on new technologies modern men have become, in Eiseley's words, “the world eaters.” This expression strongly reminds us of what Julius Robert Oppenheimer⁵—one of so-called “fathers of the atomic bomb”—said about the threat of unprecedented danger and damage that nuclear weapons brought into the world : “Now I am become Death, the destroyer of worlds” (quoted in Hijjiya). The shadow of the atom bomb surely looms somewhere behind Eiseley's concerns about planetary destruction.

Sabretooth cats and men: a meditation on extinction

- 11 How did man fall out of nature ? The poem “The Innocent Assassins” holds some clues. Here Eiseley blends his anthropological findings with speculations in poetic form. It illustrates how his capacity to travel imaginatively through time leads from a fossil discovery to a reflection on humanity. With this poem, Eiseley “explains in verse the time he and his companions unearthed the twenty-five-million-year-old fossil of two saber-toothed tigers locked in a life-death struggle in the Black Hank Canyon south of Bayard” (Nelson 14). Eiseley ponders this frozen moment in the river of time and contemplates man's place in the tremendous age of the planet. When he admires the

fossils, he also meditates how man is both like and unlike animals. The fossils of the ancient “cats” that had been involved in a fatal fight⁶ make the speaker acknowledge the violence in man too ; this is the likeness between animals and humans :

They lived long eras out, while we
in all this newborn world of our own violence show
uncertainties, and hopes unfostered when
the cat's sheer leap wrenched with his killing skill
his very self from life. (IA 81)
The speaker in the poem weeps for both “great cats” and men but for different
reasons :
On these lost hills that mark the rise of brain,
I weep perversely for the beauty gone,
I weep for man who knows this antique trade
but is not guiltless, (IA 81)

- 12 The difference is that these beasts are “innocent assassins”; while man, the “dark assassin of his kind” is “not guiltless” (not innocent). The ancient cat's weapons are natural, whereas man's are not. Lynch comments on the analogy Eiseley draws between the violence in the sabertooth and in mankind : “In this scene Eiseley sees a striking tableau of a possible, and to him quite likely, human future. Like this sabertooth, we too can be destroyed by our own excessive weaponry. The Cold War's Mutually Assured Destruction scenario would seem to have been played out by these two sabertooths” (Lynch 140). Facing the remnants of the long-departed animals, the speaker mourns what has disappeared : “the perfected instruments,” “the beauty” ; meanwhile he looks at unperfected man, whose young, restless world is saturated with uncertainties. In an emotional meditation he grieves that men are guilty of violence but lack the “grandeur of the great cats.” The “grandeur” refers to not only the size of the great cat but also its nobility ; in this comparison man is thus “a weaker creature.” Man is not born with fangs and claws by nature, his choice is then to “borrow / tools from the earth” (IA 81) —to draw power from nature. Thus the changeling, man, becomes the “most cunning.” In the drive to escape the planet man has become “a space leaper more deadly than the giant cats” (UU 112). Man creates and uses weapons that set him on an unreturning journey (obviously outward rather than towards home) and it is actually “an outworn path,” (IA 81) perhaps toward extinction, like the great cats.
- 13 Eiseley points out the “space leap”—the space exploration— is a product of man's brain, based on which he builds up his second world : “the whole invisible pyramid is itself the incidental product of a primitive seed capsule, the human brain” (IP 93). Nevertheless this brain that has allowed man to escape extinction up to now may be the cause of his extinction if it leads to the destruction of the environment that has so far sustained him.
- 14 Many forms of life like the “great cats” that existed before men's appearance on earth became extinct because of their specialization ; however, Eiseley makes a case for man being the exception : “man has broken through the boundaries that control all other life,” for he is the “creature with a specialization—the brain—that, paradoxically, offered escape from specialization” (UU 53). It seems with his super brain, man has succeeded on the evolutionary road into the future. But studying an orb spider that seems not to comprehend the intrusion of his pencil on the strands of her web, the anthropologist and writer wonders, by analogy, whether, in spite of his brain, man's thoughts remain restricted to only the limited range that his perceptions allow him : “what is it we are a part of that we do not see, as the spider was not gifted to discern

my face, or my little probe into her world" (UU 54) ? Eiseley warns his readers that man has not been totally free from the trap of specialization, because if man believes that nothing is beyond his grasp, "the great brain—the human brain—will be only a new version of the old trap, and nature is full of traps for the beast that cannot learn" (UU 55). When man's brain and his dream world—his cultural world—becomes overspecialized, the limitations of his mental eyes stop him from seeing the traps set before his advancing steps⁷. Eiseley reveals that men grow "too confident of the powers their own world, from which nature, so they thought, had been excluded" (IP 83). The qualification "so they thought" is an ironic warning to modern men that with only human knowledge, or just the culture of Western scientific civilization, they are moving recklessly forward on the path toward their own destruction. The "space leap" is a trap because man's hubris threatens his own survival. Eiseley finds the modern scientist is very anxious to conquer the natural world, including the things he doesn't fully see or understand. Such men have forgotten their lost animal environment, and ignore their responsibilities as individuals, to their brotherhood—animals—and to the place where they come from—Earth.

- 15 For Eiseley men are changelings born of nature who have forgotten the source they sprang from. Thus he takes it upon himself, as a changeling who remembers that origin, to issue prophecies and warnings. He says that he is "cursed" to see the fox and their kin everywhere he looks (NA 20), perhaps because it means that he has to confess a kinship with them. The foxes and their kin (the wolf, the coyote) are "the last/contenders" (NA 21), battling against a hostile living environment caused by the extension of men's living environment. These animals are forced to retreat to harsh land in flight from the ravages of industrial waste and damage as well as hunters and trappers⁸. The speaker has less in common with modern man, represented in the poem by his friend, the artist, who does not see the fox, than with another order of beings⁹.

I am at last aware
that there exist
changelings
born from a fourth dimension lurking
somewhere about
and I am one of these. (NA 20-21)

- 16 The words "somewhere" and "fourth dimension" add mystery to the nature of the changelings with whom the speaker admits kinship. Rather than going backwards, could the speaker represent a new form of humanity, a modern man who tests out his becoming-animal ?

A solitary butterfly: sign of a new extinction

- 17 Eiseley fears that the power harnessed by scientific inventions in modern technology has created an unnatural relationship between human beings and the natural world. The most urgent disaster is the disappearance of wildlife, as their living environment becomes violently transformed by humans. On this point, Eiseley anticipates the discussion of the present era as the Anthropocene¹⁰, a new geological era and a new age of the earth in which the human impact on the planet has altered it profoundly. Scientific experts and commentators promote this idea, notably Bruno Latour in his lectures and writings of at least the past fifteen years. Similar warnings to Eiseley's are issued by Ursula K. Heise who speaks of the sixth mass extinction of species in *Imagining*

Extinction: The Cultural Meanings of Endangered Species (2016), and Bill McKibben who focuses on climate change in *The End of Nature* (1989). Clearly, since Eiseley's passing in 1977, the problems he foresaw have become more acute.

- 18 The 20th century nature writer fears that the only world that wildlife knows (the natural world) is vanishing due to the expansion of the industrialized human world. The problem seems particularly urgent in “the Last Butterfly,” where Eiseley describes a tiger swallowtail visiting his flowerpot. It is one of those creatures looking for a greener world that he writes about on numerous occasions to stress the inhospitable nature of the urban environment :

You must understand they are rare
in this city now,
these creatures of a single season
whom I always think of
because of the one butterfly
on my solitary bush
as one immortal,
appearing disappearing
with the golden seasons
but essentially
one immortal
entering the winter dark
returning, always returning
to the single
summer plant in the world. (NA 71)

- 19 The tiger swallowtail is searching for his familiar home but all that remains seems to be “my solitary bush.” Small animal as it is, Eiseley speaks of it as “immortal,” perhaps referring to the continuing life of the species or perhaps to the fact that the butterfly symbolizes immortality in Western mythology. The butterfly in Eiseley's poems is also a symbol of summer and by saying the butterfly is one immortal he may refer to the cycle of seasons—summers come after winters. So traditionally the butterfly is a hopeful symbol ; nevertheless there is a note of sadness in this poem, as the butterfly is alone (“one”) and the bush it comes to is “solitary.” Other-than-human life forms seem to be dying out in the urban setting ; butterflies are “rare ... now.” The poem can thus be regarded as an elegy, in which an object (the butterfly) is a metaphor for what is lost. At the same time, the poem is a form of protest about man's incursions into the formerly green world. Eiseley mentions the disappearance of the tiger swallowtail again in another poem, “No Place for Boy or Badger,” which shows how “the rich diversity of nature has been replaced by a stifling monocultural conformity that allows for ‘no milkweed pods in autumn, no tiger swallowtails floating’ (12)” (Lynch 130). Both poems show Eiseley's prophetic warning about the doom awaiting wildlife and men with the destruction of the living environment.
- 20 Eiseley points out that with expanding industrialization and urbanization, “life disappears or modifies its appearances so fast that everything takes on an aspect of illusion—a momentary fizzing and boiling with smoke rings, like pouring dissident chemicals into a retort” (NC 230). Here Eiseley uses the metaphor of “fizzing ... boiling ... chemicals” to refer to modern scientific experiments and laboratory inventions, although the descriptions also suggest the alchemist or the ancient witch with her

mysterious magic potions. Just as a witch can change the shapes of living beings and an alchemist can transform lead into gold, the modern scientist can also alter the appearances of living creatures and their environment. Eiseley criticizes the fact that men have modified the environment too quickly and too violently for other forms of life to find their place in it. Nevertheless, man's industrial world seems like an illusion, and as illusions inevitably come to an end, Eiseley makes the prophecy that man's material world will disappear : "Here man was advancing, but in a few years his plaster and bricks would be disappearing once more into the insatiable maw of the clover" (NC 230). He uses another striking metaphor to suggest the eventual defeat of scientific progress. The image seems somehow oxymoronic because clover is normally a peaceful, pastoral symbol ; yet it too can become invasive, reclaiming a man-made space for the natural world.

A nostalgia for a lost place: looking back to childhood

- 21 Modern man's place is within the material world he has established, as well as his cultural world ; the other home, though long forgotten, is nature, the lost environment he shared with other creatures. Now, the danger is that man has become homeless, a confused wanderer. Nostalgia for man's loss of home leads Eiseley to look back into childhood¹¹. He raises the question whether man, like the last butterfly, is also looking for a home, a place to hold him.
- 22 In spite of the modern urge to conquer time and space, Eiseley reveals that men "cling to a time and a place because without them man is lost, not only man but life" (NC 229). If the place does not exist, man has to invent it in his imagination. In the essay "The Brown Wasps," Eiseley says, "my life has been passed in the shade of a nonexistent tree," "a huge tree that somehow stood for my father and the love I bore for him" (NC 234-235). On one hand, the tree which little Loren and his father planted in the yard of his childhood house is a real tree ; on the other hand, in reality his father passed away when Eiseley was young, Eiseley moved to another city, and the tree got chopped down long ago. Nevertheless, the tree still exists, in the writer's mind. It is no longer a substantial thing but a moral symbol for filial respect and love for the past. As he explains, the tree was "something that had to be held in the air, or sustained in the mind, because it was part of my orientation in the universe and I could not survive without it. There was more than an animal's attachment of a place. There was something else, the attachment of the spirit to a grouping of events in time ; it was part of mortality" (NC 235). Eiseley and his father "had a great hunger for soil and live things growing" (NC 234), thus they planted the tree in their home. It becomes a symbol of their attachment to place. This incident offers readers the thought that man needs attachments to survive ; he needs "soil and live things growing" just as plants and animals do. The tree is a symbol of the need for roots. Eiseley says, "a man has a right to his place" (NC 229), and I think that he is announcing this also for animals. Revealing the harsh living environment for wildlife in man-made world, Eiseley urges modern man to look at the ecological problem and search for solutions in forging an ethical relation to place. Man's loss of the green world and the past has brought on a loss of habitats for animals and plants ; Eiseley finds that the solution lies in affirming an attachment to place.

- 23 Eiseley's speaker can see a tree that doesn't exist thanks to his brain ; the mind allows man to see things that are not there. In his poem "The Changelings," the speaker is haunted by the faces of animals : "cursed by these foxes and their kin the wolves / to see them everywhere" ; "I saw them in the boles of ancient trees, / in shadows dancing upon walls" (NA 20). Rather than a source of fear, the speaker finds that "the faces sprang / from some / uncanny pleasurable perception" (NA 20). He seems to experience a form of recognition, perhaps that humans' destiny is inevitably associated with non-humans. Wildlife may disappear from the environment, but for the attentive imagination it is everywhere. The speaker revisits the practices of pre-modern men, trying on "fox masks, wolf masks .../ as if I were a savage" (NA 19). He seems to want to reconnect with Native American beliefs in totem animals or with a more ancient living environment where men painted animal shapes on the walls of caves.
- 24 These visions of animals in dancing shadows echoes a phrase in Eiseley's essay "Angry Winter" that says, "Man...domesticate[d] fire. Its dancing midnight shadows and the comfort it gave undoubtedly enhanced the opportunities for brain growth" (UU 116). Fire was man's means of distancing himself from the animal world. The "shadows" it produces contrast with the daytime world, and encourage the development of mental vision, while the "comfort" refers to the heat and light that fire brings. So early man's fire making helped him evolve in a different way from animals. With the shapeshifting shadows on the wall, man uses his imagination to reach an understanding of the natural world from which he has been separated. In the poem "The Changelings" Eiseley's speaker returns to the place where fire is built to see the foxes and their kin ; he returns to the beginning where man and animal are not so separated¹².
- 25 Is this return to the beginning where the borderline between animal and human is not so clearly drawn regressive ? Does Eiseley want man to get back to a time when man lived in a more natural way than modern men ? That may be why he tries on the "fox masks" and "wolf masks." However, the suggestion he provides for a return to the "green world" need not be seen as regressive. It is rather that Eiseley thinks about the way in which man's present course will lead to extinction. It is a warning that we can disappear. An all-human future, in which man evades Earth's problems through space travel is not the answer ; instead, reconnecting with the animal world may be the right path to follow. He opposes himself to other men who try to alter nature and regard it only from a utilitarian point of view ; instead, he advocates that wonder for the unknown and respect for nature may be the proper worldview.
- 26 As in the poem "The Changelings" Eiseley's speaker comes to the identity he claims as a changeling : "I am born of these, / their changeling" (NA 22). The speaker could be imagining himself as the offspring of coyotes or the foxes and the wolves, exchanged so that he could have the privilege of living in the human world. However, he feels he doesn't belong to this human world or identify with the species that he resembles physically. Perhaps he still feels that bond with "first nature." He hasn't quite fallen into the modern world. The changeling knows "a nature still / as time is still / beyond the reach of man" (NA 22). The repetition of "still" points decisively toward the future, suggesting that other men may eventually embrace the state of changeling.
- 27 To conclude, comparing the short scale of human life to the vast span of geological time, Eiseley points out the brief reign of his own technological civilization. In Eiseley's eyes, though modern men and native peoples are brothers in nature, because of their different worldviews the gap is widening between the "degraded remnants of the

hunting folk” and “the world eaters” (IP 114). Eiseley urges modern men to follow the example of the indigenous peoples and to re-enter nature, retaining their former awe for the unknown in life and time. Maybe by achieving this perspective modern men can gain a new and different attitude toward their environment and their relation to other life forms. The green world holds the keys to the biodiversity of life within it. As only one element of the biosphere, albeit a decisive one in the Anthropocene era, man should respect nature’s power.

- 28 Eiseley regards himself as a changeling of Mother Nature because he continues to align himself with the natural world. If man insists on remaining detached from the nature from which he sprang, the threat of losing the world that sustains him looms in his future. And humanity will face the same future as the sabertooth cats not in spite of our developed brains but because of them. Once men lose respect and sympathy for other living creatures or lose wonder and curiosity for nature, they risk of losing their connection to life, and having their cultural world vanish along with the natural one. To avoid falling into this trap, modern men need to acknowledge that interdependence may be more important than aggression or mastery ; and by working to prevent the extinction of other species, humans are also protecting against the extinction of humanity.

BIBLIOGRAPHY

Buell, Lawrence. *Writing for an Endangered World : Literature, Culture, and Environment in the U.S. and beyond*. Cambridge, MA : Belknap of Harvard UP, 2001.

Eiseley, Loren C. *The Firmament of Time*. Lincoln, Neb. : U of Nebraska, 1999. Print. "Originally published by Scribner, an imprint of Simon & Schuster Inc. Reprinted from the 1960 edition by Atheneum, New York"--P. [iv] "Bison book."

---. *Francis Bacon and the Modern Dilemma*. Lincoln : U of Nebraska, 1962.

---. *The Innocent Assassins*. New York : Charles Scribner's Sons, 1973.

---. *The Invisible Pyramid : A Humanist Account of the Space Age*. London : Rupert Hart-Davis, 1971.

---. *The Lost Notebooks of Loren Eiseley*. Ed. Kenneth Heuer. Boston : Little, Brown, 1987.

---. *Notes of An Alchemist*. New York : Charles Scribner's Sons, 1972.

---. *The Night Country*. Lincoln, Neb. : U of Nebraska, 1997.

---. *The Unexpected Universe*. New York : Harcourt, Brace & World, 1969.

Heise, Ursula. *Imagining Extinction : The Cultural Meaning of Endangered Species*. Chicago : University of Chicago Press, 2016.

Hijiya, James A. "The Gita of Robert Oppenheimer." *Proceedings of the American Philosophical Society* (June 2000) : 144 (2).

Kolbert, Elizabeth. *The Sixth Extinction : An Unnatural History*. New York : Henry Holt, 2014.

Lynch, Tom. "The Borders between Us' : Loren Eiseley's Ecopoetics." In *Artifacts and Illuminations : Critical Essays on Loren Eiseley*. Ed. Tom Lynch and Susan N. Maher. Lincoln and London : University of Nebraska Press, 2012. 123-142.

McKibben, Bill. *The End of Nature*. New York : Anchor, 1989.

Nelson, Brandon. "Walking in the Footsteps of Loren Eiseley Scientific Discoveries in Western Nebraska" *Prairie Fire* (June 2014) : 14+.

Zalasiewicz, Jan, Mark Williams, Will Steffen, and Paul Crutzen. "The New World of the Anthropocene." *Environmental Science and Technology* 44 (2010) : 2228-31.

NOTES

1. This term was coined by Paul Crutzen and his colleagues Will Steffen, Mark Williams, Jan Zalasiewicz. It refers to the current geological era where human activities have made a significant impact on Earth's geology and ecosystems.
2. "First nature" refers to the instinctive world of nature that humans have lost touch with. The term goes back to Cicero's distinction between wild and cultivated land in *De natura deorum*.
3. I will refer to Eiseley's works by the first letters of their titles.
4. In his book *Writing for an Endangered World*, Lawrence Buell says, "Karl Marx was not far wrong in claiming that by the mid-1800 second nature (nature as reprocessed by human labor) had effectively dominated first nature worldwide" (3).
5. Thanks are due to James R. Goebel who brought this quotation to my attention and asked me whether Eiseley talked about America's nuclear program.
6. Tom Lynch shows that "it is the skull of a saber-toothed cat, a 25 million-year-old smilodon, with its tooth piercing the humerus of another of its kind" (Lynch 139). According to a specialist on paleontology, the South Party that Eiseley joined discovered a 25-million-year-old *nimvarus brachyops*, and it is not even a member of the cat family. So we can see that Eiseley is employing poetic license by referring to "great cats." This is not the only change Eiseley made, for Lynch points out that "the poem opens with an evocation of a landscape that resembles the Toadstool Park area of Nebraska: 'Once in the sun-fierce badlands of the west / in that strange country of volcanic ash and cones, / runneled by rains, cut into purgatorial shapes, / where nothing grows' (lines 1-4). And, indeed, in his biography of Eiseley, Christianson identifies Toadstool Park as the location of the find (Fox 131). However, work by Bing Chen and others has concluded that the actual site of the find was in the Wildcat Hills near Chimney Rock. This discrepancy suggests that Eiseley took liberties in his portrayal of the landscape where this artifact was uncovered. The poem describes a more barren and lifeless landscape than the one in which the skull was actually unearthed, evoking a sense of a surreal 'purgatorial' desolation he felt more appropriate for the ominous character of the artifact and the mood he was seeking to evoke in the poem" (Lynch 139).
7. In his study of Eiseley's poem "Five Men from the Great Sciences" from *The Innocent Assassins*, Lynch draws the same conclusion concerning man's limitation in understanding nature. He comments: "the narrator describes five scientists whom he has overheard discussing how, thanks to the powers of science (and to the powers of men such as themselves), humans had at last succeeded in transcending nature. The skeptical poet, we are not surprised to read, is dubious,

for he sees these men of science as trapped and limited rather than liberated by their increasing specialization and reliance on fancy tools. These men, he considers, 'were caught inside ... in a perpetually narrowing corner' (lines 6-7)" (Lynch 134).

8. Lynch argues that "People who would be appalled at the idea of directly killing a turtle, or any other animal, nevertheless freely participate in a modern lifestyle that includes the destruction of habitat and the incursion of highways, phenomena that are every bit as deadly to animals as are hunting rifles or slaughterhouses" (Lynch 130-131). He suggests that all citizens of industrialized nations participate in the careless destruction of wildlife.

9. Lynch draws a similar conclusion in studying another of Eiseley's poems, "The Last Days," observing that "in poems such as this Eiseley indicates that his allegiances are with the rest of nature and cannot be counted on by his own species" (Lynch 136).

10. Though "Anthropocene" is not Eiseley's word, his ecological thought participates in this trend. The use of the term became popular after his death. Much of the scientific community now accepts the danger of falling out of nature.

11. Lynch observes that "The loss of wild habitat is not just a loss for badgers and foxes, milkweeds and tiger swallowtails, but for children as well, who are deprived of the foundational experience of intimate contact with unruly nature. This loss of childhood time in nature is a concern recently expressed by many environmental educators (most notably Richard Louv), but Eiseley anticipated this current lament decades ago" (Lynch 130).

12. Lynch praises Eiseley's "evolutionary consciousness," for he manages to show his readers "as we descend further back in time, we reach a point where 'we' are no longer humans at all, where the borders between us and animals entirely dissolve as we, quite literally, become them. For Eiseley, unlike for most of us, these earlier periods are not remote. His professional career was about tracing them down and finding their artifacts" (Lynch 140).

ABSTRACTS

A scientist who writes critiques of his contemporaries' scientific practices, Loren Eiseley challenges the views of science, nature, and man that were current at the time he wrote. Rather than accepting the doxa of modern mechanical science, he uses his knowledge as an archeologist as well as his personal experience to find new angles from which to view the universe and *homo sapiens'* place within it. He argues that modern man has fallen out of nature and become a planet destroyer who causes the death and extinction of non-human forms of life. In this he anticipates the eco-centric position that is becoming necessary in the era following the Industrial Revolution that is increasingly being recognized as the Anthropocene. Eiseley's writings urge that humanity reconnect with our animal past in order to respect the natural world from which we came. His work forces readers to participate in his project of re-examining our own mental and cultural world.

Loren Eiseley se pose en scientifique qui critique les pratiques scientifiques de ses contemporains. Il remet en cause les thèses sur la science, la nature et l'homme qui avaient cours à son époque. Plutôt que d'accepter la *doxa* des sciences mécaniques modernes, il utilise son savoir d'archéologue ainsi que son expérience personnelle pour trouver de nouvelles ouvertures sur l'univers et sur la place de *l'homo sapiens* en son sein. Il pense que l'homme moderne s'est dénaturé en devenant le destructeur de la planète, entraînant la mort et l'extinction des formes

de vie non humaines. De ce fait, il anticipe le point de vue éco-centrique qui devient nécessaire dans la période qui a fait suite à la révolution industrielle, période de plus en plus désignée comme l'anthropocène. Les écrits de Eiseley pressent l'humanité de renouer avec notre passé animal de façon à respecter l'ordre naturel dont nous sommes issus. Son œuvre force le lecteur à participer à son projet de rénovation de notre univers mental et culturel.

INDEX

Mots-clés: séparation nature/culture, enfant substitué, mangeur de monde, extinction, anthropocène, peuples indigènes, animaux totémiques, écocritique, critique de la science moderne

Keywords: nature/culture split, changeling, world eater, extinction, Anthropocene, indigenous people, totemic animals, ecocriticism, critique of modern science

AUTHORS

QIANQIAN CHENG

PhD student

Université de Toulouse II- Jean Jaurès,

qianqian.cheng@hotmail.com