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The Buried Scales of Deep Time: Beneath the Nation, Beyond the Human... and Back?

Cécile Roudeau

I have found out a gift for my fair ; I know where the fossils abound, Where the footprints of Aves declare The birds that once walked on the ground.[...]

> We'll note, love, in one summer's day The record of millions of years ; And though the Darwinian plan Your sensitive feelings may shock, We'll find the beginning of man, Our fossil ancestors, in rock ! Bret Harte, "Geological Madrigal" (1871)

1 The poet's mischievous invitation to his paramour to walk down geology lane has recently found unexpected echoes among scholars—historians and literary critics—who had long stopped to unearth their research topics "where the fossils abound." Since the end of the last millennium a hermeneutic vein has resurfaced that was believed buried for good—the vein of the *longue durée* under a new guise and denomination, that of deep time. It would seem that, to take up the words of Dana Luciano, whose interview closes this issue of *Transatlantica*, rocks are being thrown at us from the depths. These rocks have come in the form of novel questions : What becomes of history when recent cognitive projections invite us to let go of the great divide between us—the historical humans—and them—the prehistorical ones ? To take Daniel Lord Smail's question in his *Deep History and the Brain* (2008), what does it mean for historical narrative to have the Neanderthal back with "us," that is, in *historical* time ? On the other hand, when we mechanically extend our perception of the future 10, 000 years by using a five-digit, instead of a four-digit, dating system, what becomes of the plots we are weaving and those we are still reading $?^1$ Have we reached the expiry date of narrative itself, when both the scale of the present and the scale of geological time are so vast that they defy all attempts to accommodate them into a story ?

- ² These questions and others were first raised by Henry Gee who, in his *In Search of Deep Time* (1999), radically challenged the story-teller of today's "long now": "Geological time admits no narrative in which causes can be linked with effects", he writes in the preamble to his book. Each fossil is "an infinitesimal dot, lost in a fathomless sea of time, whose relationship with other fossils and organisms living in the present day is obscure" (2)². Who, then, can connect the dots ? "This is geological time, far beyond human experience. This is Deep Time," he insists (26). And Deep Time leaves little hope to those enamored with stories.
- ³ If Gee seems to agree with Stephen Gould that so ancient a history can only be comprehended as metaphor,³ metaphors, however, only bring us back to the "evanescence and lubricity" of Deep time. Deep time allures us all the better to slip through our fingers and our narrative tools, leaving us word-less, form-less, story and history-less. No wonder the shock has been felt by literary critics as well. Searching, in turn, for deep time, they have begun reconsidering the scale of their own analysis and started revisiting the texts they used to read with the geologist's kit in hand.
- Granted, deep time has been uncovered and recovered as one of the scales of literary scholarship; but it is not yet a cold object. In fact, we may have been too fast in enrolling deep time in the paradoxes of our turn-of-the-millennium desire for newness as we scrupulously build the sepulchres of nations and turn a blind eye to the shorter *durée* of human history. Now is the time, this issue of *Transatlantica* would like to suggest, to restore deep time itself to a longer *durée* and reassess its analytical potential and its validity as critique.

American Literature Across Deep Time : Now and Then

The most clamorous call for deep time as an alternative scale for literary studies was 5 made in Wai Chee Dimock's Through Other Continents : American Literature Across Deep Time, which captured the crucial import of reaching back into deep time to scale up literary studies. "For too long," she wrote, "American literature has been seen as a world apart, sufficient unto itself, not burdened by the chronology and geography outside the nation." (2-3). Sharpened for Dimock's purposes, deep time was a tool that could help continue the work, begun by others as well, of shaking up the national paradigm. "Deep time is denationalized space," she claimed, hoping thereby to shatter national borders and national periodizations (28). Neither 1776 nor 1620 abide when one reads American literature across deep time ; what surfaces instead is what she calls a "nonstandard time" made up of "alternate measures-African, Asian, and European -" "an irregular duration and extension, some extending for thousands of years or thousands of miles, each occasioned by a different tie and varying with that tie, and each loosening up the chronology and geography of the nation." (4) This off-beat tempo undoes the illusion of the homogeneous, empty time of nations and invites readers to follow multiple desynchronized rhythms, not only the quick pace of political "events," but also-the ghost of Braudel is tapping here4-the slower cycles of nature, even the almost immobile unfolding of geological time that lies buried in the recesses of American literature. And one can trust Dimock to find them there. Reading Thoreau's A Week on the Concord and Merrimack River, for example, she finds traces of his fascination with Hinduism, and unearths more than one link with the Eastern world that was so far from Concord, and yet so dear to his heart. In the text, and with the reader's complicity, ties are woven between the United States in 1849 and the Ganges or the *Himmaleh* Mountains, between Transcendentalism and the "Book of Manu," across continents and across time.⁵ In search for denationalized analytical tools, Dimock variously finds them in universal religion or in the genre of the epic; elsewhere, it is the time of the species or the time of the planet that provide the extended frame needed to save the literary critic from his or her ingrained national, or even

- ⁶ Such "liberation" has a cost, however. A fulcrum is required ; something must remain unchallenged across social or political circumstances or historical contexts—a form maybe, which the tenets of New Criticism used to hail as the promise of a global translation ; or some universalist invariant or transcendental scheme, both of which remain unaccounted for in Dimock's discourse.⁶ More concretely, there lurks in Dimock's version of deep time the dream—however unacknowledged and unwanted—of a global compatibility of *American* literature (the adjective is from her title), an uncanny belief in a "capacity for expansionist movement" that may as well be called, and was called by some of her reviewers, an "imperial nostalgia."⁷ Deep time proves a double-edged sword indeed : used to deconstruct the old-fashioned essentialisms, including the nation, it tends to resuscitate universals and, favoring among them "the human" or "the planet," fails to question their sudden relevance, their contingency on, and complicity with, the ideological tenets of our own age.⁸
- Would deep time, then, be a hermeneutic and practical *impasse* that would have us swap our old essentialisms for others? As an anti-historical and paradoxically a-temporal move, it may well be. Part of the lure, I would contend, resides in the so-called "newness" of the concept, a newness that would automatically clear it of any collusion with (old-fashioned) nationalism and imperialism. "I would like to propose a new term —"deep time"—to capture this phenomenon" (3), writes Dimock in her introduction to *Through Other Continents*, a smart rhetorical move that however fails to serve her cause. Deep time, as this issue of *Transatlantica* attempts to show, has a long history of its own, as a geological concept, as a literary concern and as a political tool with ambivalent agency. Deep time, then, needs to be historicized, and, when historicized, it emerges as deeply entangled with "America" as textual and political construct.
- ⁸ One name recurs time and again in this issue of *Transatlantica* : James Hutton, the Scottish geologist usually credited with the "discovery" of deep time at the end of the eighteenth century.⁹ Ignited by Hutton and his peers, the cognitive revolution that upturned our apprehension of the place of the human in nature and in time was cotemporaneous with the political upheavals in America and in France. As Martin Rudgwick has underlined in his book *Bursting the Limits of Time : The Reconstruction of Geohistory in the Age of Revolution*, the emergent political regimes of the day took the "nation" as the universal basis of the political and simultaneously hoped to found it in nature. *Pace* Dimock, historicizing "deep time," then, does not bypass the idea of nation ; rather, it underlines the commingling of the two scales of geology and politics, paradoxically as it may appear. The age of the declaration of Independence in Emerson's 1837 "American Scholar"—did call for new beginnings and a political and philosophical

nationalist, bias.

tabula rasa,¹⁰ but we tend to forget that a contrapuntal urge for a longer *durée* was simultaneously felt and acted upon to seek new annals for the nation in the deep time of nature. Literature and politics were partners in this enterprise.

- 9 It is true that "we" are less familiar with such a story, we the scions of the Cooper-Hawthorne-James's version of the American plight: the blankness of the American scene, the dearth of archives, the emptiness of the past-a tradition that may have particularly thrived in "old Europe" among natives or émigrés whom the idea of a reverse exceptionalism of American literature could not have left indifferent. "The flower of art blooms only where the soil is deep," (3) Henry James, then a writer in exile, famously wrote in his 1879 biography of Hawthorne, with the clear and no doubt self-exculpatory implication that the thinness of American culture did not bode well for future literary harvesting. "It takes so many things, as Hawthorne must have felt later in life, when he made the acquaintance of the denser, richer, warmer-European spectacle-it takes such an accumulation of history and custom, such a complexity of manners and types, to form a fund of suggestion for a novelist." (43) Nature, alas, is young in America, time immature, and art not even born. In this, James was the heir to a long line of prophets of doom, among whom James Fenimore Cooper himself who, in his Notions of the Americans (1828), already regarded "the poverty of materials" as the "obstacle against which American literature ha[d] to contend" (142) and lamented, in the geological jargon of the times, that "[t]here is scarcely an ore which contributes to the wealth of the author, that is found, here, in veins, as rich as in Europe [...] There are no annals for the historian." The verdict seems final ; time had no depth in America.
- Not quite, though. Such reverse exceptionalism, nourished by transatlantic writers with an ambivalent relation to the politics of the "new" United States, was not without its paradoxes. America was as old as its hills, and James, Cooper or Hawthorne knew it very well, who lived at the times when Indian mounds and giant fossils and petrified footprints were being uncovered, glossed over, raved over, turned into national monuments or poetic material.¹¹ As soon as the Revolutionary period, the "Fathers of the Republic," the same who had started the calendar anew, had searched the depth of the American soil for *Megatheria americana* and other native mastodons in quest of a genealogy that would bypass, or even rival, old Europe's—a genealogy without the burden of history, that is. Relieved from a history that would be an obstacle, not to art for sure, but to the appropriation of an "Adamic" wildness that could admit of no precedent, the nation was however in dire need of a past of its own. The deeper, the better.
- 11 An avid collector of bones, relics and remnants of an ancient past, Thomas Jefferson, Founder, naturalist and man of letters, readily embodied the nation's double-bind¹². The story of his disquisition with Buffon is well-known, whose thesis of American degeneracy was inacceptable to the drafter of the American independence. Showering the Frenchman with a number of mammals' bones and fossils unearthed in America, Jefferson hoped to prove him wrong with the substantiation that the American Mammoth, or American *incognitum*, the skeleton of which had been uncovered in the Hudson valley in 1801, was still roaming in the western wilderness. Yet in vain. Not even Lewis and Clark could produce a living American mammoth, and Cuvier, the French naturalist, soon made the whole Jeffersonian edifice crumble when he declared the creature to be an extinct species. Yet, extinct or not, the formidable mastodon became a testimony to the monumental heritage of the American nation, "the Antique

wonder of North America" according to Charles Willson Peale who had been able to piece together the beast's skeleton in his Philadelphia museum in 1802 (Semonin, 329). Wrong as Jefferson was, "young" America was possessed of an aboriginal antiquity that could rival Europe's deep past.¹³At long last.

¹² This anecdote has deeper meaning than meets the eye. What was at stake in the early national search for a deep past that might still be "with us" was nothing less than the continuity or discontinuity of the national (hi)story and its fiction of origins. On it hung the very architecture of a narration that either waged on the "living fossil," whose persistence proved the vivaciousness of the nation, or held it more relevant to bet on a radical discontinuity of time ; in the latter case, paying homage to an always-already fossilized civilization was an easy way out of the burden of an unwritten past.¹⁴ Because deep time was anything but a given, it thus remained to be invented, turned into a usable past for the nation in becoming. In this task, the politician, the historian, was not alone. Literature and the arts also had to make do with the national paradox, and, *pace* Emerson, more than one American scholar turned geologist or acted as a would-be Champollion when faced with the incomplete and sometimes hardly legible lithography of rocks, strata and American hieroglyphics – the annals of his new world.

Portrait of the Writer as Geologist

- ¹³ The issue, then, is not to *restore* American literature to deep time, as Dimock suggests ; deep time, one of the hottest topic of the formative years and consolidation of the nation, is probably the worst kept secret of American literature, its purloined letter, hidden in plain sight. As Dana Luciano makes clear in her interview, geology, a new branch of natural history in the nineteenth century, was not the guarded province of college professors and scientists ; it branched out in the popular press as in genteel periodicals ; it fascinated men and women of letters and provided metaphors for politicians and cartoonists alike. Bret Harte's madrigal, in that sense, was but one yarn among many, and his lover-persona would probably have met a good many rivals on geology's lane.
- ¹⁴ But more interestingly perhaps, geology became the hermeneutic paradigm *par excellence*. While geologists borrowed their tools from historians, archivists or archeologists, and declared their findings to be the "medals" or "coins" of nature, nineteenth-century romantic historians, in turn, enjoyed taking the guise of the famous geologists of their time to resuscitate the dry fossil bones of the past and, like Thomas Carlyle, biographer of Oliver Cromwell, "create an appetite under the ribs of death !"¹⁵ To bring the fossils back to life, to give them skin, flesh, muscles, like Richard Owen's famous resuscitations of Iguanodon, Magalosuarus and Hulaeosaurus, to beg them to speak even (think of Michelet's notorious injunction!), was then conceived of as the task of the historian, and, across the Atlantic, the task of the romancer alike, who together poked and burrowed, delved and probed.
- 15 Behold the Salem Custom-House, geologically considered :
- Poking and burrowing into the heaped-up rubbish in the corner, [...] glancing at such matters with the saddened, weary, half-reluctant interest which we bestow on the corpse of dead activity, —and exerting my fancy, sluggish with little use, to raise up from these dry bones an image of the old town's brighter aspect, when India was a new region, and only Salem knew the way thither—I chanced to lay my hand on a small package,

- 17 About to change careers and abandon his status as civil servant to embrace the uncertain vocation of romance writer, Hawthorne himself, who might have remembered Carlyle as much as Bancroft in this instance, did endeavor to raise the dead—the bones of the dead, that is. In so doing, not only did he hope to found a literary genre-which he did-but he also endeavored to restore American letters and the American nation to the longue durée—in spite of the discontinuity of the Revolution. How? We all know it. It all pertains to a letter, not any letter, mind you-the red relic of the letter A, the sign of new beginnings bequeathed to him by a ghostly figure, the wigged "imperfect skeleton" (33) of Old Surveyor Pue, unearthed, fleshed out and resuscitated for the occasion. The author, then, the Author invented by Hawthorne, is a digger, a grave-robber, but more than anything else, he is, like Thoreau, or Jefferson before him, a lover of "relics," Indian or Catholic, to which the letter is made to resemble. Like his contemporaries, he is an avid collector of those Americana that belong to a past that is dead.¹⁶ Hester Prynne herself emerges from the preface to the romance as "a very old" woman, abiding in old people's memories as one whose custom it had been, "from an almost immemorial date" (36) to go about the country doing whatever good she might.
- ¹⁸ In Hawthorne's national romance, then, the annals of America are made to fade into deep time; the Puritan past that he bore like a burden glides into the archeological past of the "nation" before the nation, the fossilized time of the continent. Born in a "Custom-House," the American romancer had to pay his due both to the present of the mid-nineteenth century and to the multiple pasts of the nation. Far from dismissing the national from the territory of the romance, he contributed to giving the nation a tempo and a *durée* of its own, the *moyenne durée*, which in Braudelian terms was structured by its relationship to both the *short durée* of politics and the *longue durée* of the natural.
- The soil, in America, was thus deeper than James ever wanted to acknowledge. In fact, the annals whose absence Cooper feigned to lament were up for grabs if only one were ready to reach back a little further into the *longue durée*. But, going deeper than the political scratches of the American Revolution didn't "denationalize" time. The continental dimensions that it made available did not so much compete with the interest of an expanding *national* territory, as it was part of its complex unfolding and legitimization. Put differently, deep time was both the internal and external frontier of "America" understood as a narrative construct; it simultaneously challenged and reinforced nation and narration, obliging them both to face problems of continuity or discontinuity, causality, structure and scale. It unsettled the customary genres of history and literature, and revisited the definition of both event and plot as the obvious pivots of the story to be told. Clearly, this concept alone, emerging as it is out of the age of nations, is unable to discredit the hegemony of our national cognitive frames.
- 20 In that sense, Dimock's push beyond the national, laudable as it is, remains problematic. Deep time does not force us to ignore the national *per se*. In fact, in the Anthropocene, using the tool of the *longue durée* to deny the national and its relationship to deep time may even prove a costly misinterpretation. It means that we cannot see, or refuse to see, how the scale of the national—obsession with GDP, economic growth, global competitiveness of all sorts, etc.—is in the process of leaving

its own deep impact on the planet. In the Anthropocene, the national is not just something to move beyond, it is something to be reckoned with, observed as well as challenged. The scaling up that deep time prompts us to make toward the continental, the human and non-human, toward nature as agent and narrative force, as Sawyer suggests, is one place to start; and as a contact zone between the human and the nonhuman, the material and the sensory, the nation and the world, literature and literary studies have a role to play.

Reading in and out of the Human: Literature in the Age of the Anthropocene

- The relevance of the human as a cognitive and poetic frame cuts through all the essays 21 in this issue of Transatlantica, which presents a cross-section of American literature from Henry David Thoreau's excursions-Ktaadn (1848) and A Week on the Concord and Merrimack River (1849)-to Barry Lopez's "The Stone-Horse" (1986); from Herman Melville's lithic fantasies in Pierre (1851) to John McPhee's Annals of the Former World (1998); from the same Melville's disenchanted musings on the giant tortoises of The Encantadas (1854) to Marianne Moore's poetic exploration of Mount Rainier's glacier in "An Octopus" (1924), through the mechanical monuments to universal time that peopled the Centennial and Columbian Exhibitions and the popular tales that avidly reported on them. Taking deep time as one scale of their analysis, these essays have not tried to tease out the complex entanglements of nature and nation, of historical and geological time, of the human and the non-human, so much as they have patiently felt the involuted textual surfaces, unable and unwilling to sever what literature had kept intertwined. Reading Thoreau, Melville, Moore, and Lopez across deep time, then, has not "denationalized" them so much as revealed the nation as a human, that is, a transient and potentially trivial, wrinkle in the folds of planetary time.
- In her study of Ktaadn, the first of Thoreau's Maine Woods narratives, Agnès Derail-22 Imbert shows how the harmonious kinship between the self and the world, commonly regarded as Thoreau's transcendentalist heritage, is unsettled on Mount Ktaadn by the terrifying revelation of a nature indifferent to the human. Ktaadn eventually leaves the reader with the discovery, too late to be helped, that "we" may not be the measure of all, that the world may go on without us, affected by the damage we have caused, yet deeply unmoved by our vanishing. The earth abides, and for as long as we live, we can only see but a provisional layer in a deeper palimpsest, says the narrator of A Week on the Concord and Merrimack River, a text analyzed in this issue by Julien Nègre. The surface exposed and explicated by maps is but a fold, and the maps that Thoreau drew or annotated on his excursions did not so much confirm national sedimentation as expose some troublesome depths likely to unsettle the national grid and betray the deceptive eternity of national history. Decades later, at the beginning of the 1920s, Marianne Moore, also an excursionist in the American wilderness, would in turn transform her map of a poem dedicated to the Mount Rainier glacier into a palimpsestic exploration of deep time and a rebuff to the eternity of the national. Like Thoreau, her map was anything but an immovable ID of the nation ; rather, as Aurore Clavier here suggests, her "octopus of ice" defies categorization, and the apparent petrification of its depths and surface is belied by the experimental crossings and transmutations and adaptations that carry the reader along its vertiginous depths and

variegated surface. The jubilatory transmutations displayed by Moore's "octopus of ice," her elated mélanges, are oddly redolent of Thoreau's exultation in front of the thawing bank of Walden, the grotesque transmutations of nature that had momentarily soothed the qualms of he who asked : what is a week on the Concord and Merrimack River, when measured against the deep time of the continent ? What good is the man of letters, whose contribution is but another layer, another leaf to be blown away? What good is the letter itself, if nothing avails in the vastness of time ? While Thoreau held, no matter what, to the "living poetry" of the present, says Julien Nègre, leaving the "fossil earth" to geologists, and concentrating in the end on the infinitesimal "now," Herman Melville caustically questioned the viability of any attempt to grasp, let alone narrate, the immensities of non-human time. Pierre is one of the two samples taken by Bruno Monfort to question Henry Gee's pronouncement of the incompatibility between the non-human logic of deep time and the order of narration. Confronting Melville's Pierre with John McPhee's Annals of the Former World, B. Monfort seeks to understand how these two narrative postures try to accommodate a temporality beyond the human. Unlike McPhee's travel narrative that uses the codes of the genre to project the horizontality of national conquest onto the verticality of geological cuts, Melville's fiction, says Monfort, ironically pits its eponymous character against a temporal immensity that turns him dumb. Personal and national genealogy yields to a geological discourse that turns tautological, when Pierre eventually faces himself as "pierre/stone," without being given access to any other depths than those tentatively offered by such tragicomic reflexivity. Only the narrator, in the end, remains relatively unscathed, yet is condemned to play with the involuted surface of a text that accommodates the infinities of non-human time only to turn them into grotesque, or disenchanted, tropes.

Disenchanted also are Melville's Encantadas. In spite of their name, Michel Imbert concurs, those far-away islands ominously bear the "signs of vanishing humanity." The national epic that geologist and founder Thomas Jefferson used to index on the depths of the continent finds its parodic end on a desolate archipelago in which the darkest version of Darwinian evolution threatens the enlightened ideology of the American revolution. On those dreary Enchanted Islands, the sealed letters glide by and find no applicant. The "living mail" of the Gallipagos tortoises may well spell an infinite endurance, their message of immemorial date will remain unaddressed. As in Pierre, the narration that tells of non-human time has only tropes to live by ; but in the Encantadas, the immense "wastes of time," Shakespearean as they might be, are not even worth a jeer. The wilderness of the isles is hardly an archive, deprived of any meaning ever to be disclosed. Not so in the lithic American desert of the 1980s-or shall we say 01980s so as to prevent the deca-millennium bug that is to come into effect in about 8,000 years. In Barry Lopez's "The Stone-Horse," analyzed here by Norma Tilden, not a tortoise but a horse, or rather the lithic sculpture of a horse, is uncovered by the narrator, centuries after its being crafted; and the geoglyph, this time, remains a living mail addressed to futurity. The narrator of Lopez's creative non-fiction reads it as a letter indeed to be transmitted from the long past of the Quechan artists who once shaped it to the non-human immense future awaiting the planet. Deep time, says Norma Tilden, is "not just retrospective; it also rushes forward." The "unoccupied corridor" that Lopez's narrator feels he has stepped into when standing mesmerized before the horse embraces his and our own absence. Strangely reminiscent of the grandiose universal exhibitions of the latter half of the nineteenth-century, where, as Thomas Allen shows in his essay, the temporality of gigantic machines and clocks dwarfed, and sometimes even dismissed, human agency, the equine geoglyph buried in the American desert prompts us to change the cognitive scales whereby we understand human experience and invites us to think beyond human time, even to envisage our own vanishing as species. The monumentalization of time illustrated in the gigantic mechanical achievements of the Industrial age provides a relevant background for current attempts to articulate technological prowess and the longue durée, as exemplified in a project like the Long Now Foundation, Allen suggests. The monumental clocks of the universal exhibitions of 1876 and 1893 were not only the tool a Leviathan State used to administer the homogeneous time of the nation; they also gave those who saw them, or read about them, the opportunity to fantastically vanish into a temporality that neither contained nor confined them. However different it may be from the gigantic clocks of the Columbian Exhibition, the enduring presence of the Stone-Horse, which Norma Tilden reads as yet another foreshadowing of the Long Now, also invites us to contemplate our disappearance in the corridor of time. Fascinated as we are with a temporality that swallows us yet leaves untouched those among our artifacts that have dared to anticipate the absence of their makers, we are left with the uncannily alluring perspective that we are responsible for making up a future that is no longer counting on us. Not only are we now aware of nature's terrible indifference, like Thoreau at the top of Mount Ktaadn, but we have recast ourselves into one of those geological forces that have the power to blot out our own species from the planet; delving into deep time, we have wiped ourselves out of the future. The human, in other words, has emerged as a geological force of its own, an agent of its own preservation or destruction.

The Anthropocene, as this new age of the planet is now being called, is at the heart of 24 Stephen Sawyer's essay, the last of this issue. The altered relation between the human and the non-human, one of the cognitive results of the Anthropocene, could have important consequences for how we construct historical and literary narrative, Sawyer suggests, insofar as the new configuration between nature and culture calls for a "mind-bending reorientation of the temporal scales." In the Anthropocene, culture no longer sits upon nature as its backdrop, nor the short term upon the long term : in fact, the short term governs the long. The undoing of the distinction between the human and the natural, then, necessarily blurs the boundary between the slow passage of geological time and the quick pointillism of human history; it requires no less than a realignment of our temporal categories for making sense of our past, present, and future, and an acknowledgment in our narratives of the prospect of our own disappearance as species. Reading literature across deep time, then, prompts us to seriously consider the relationality of humanity-in-nature, and, further still, to adopt the radically decentered standpoint of a perspective without the human. This, however, generates as many questions as answers, a series of questions that served as the foundation for the conversation with Dana Luciano that concludes this issue. Pushing the boundaries of narrative and setting aside the limits of the literary, Luciano gives us here a foretaste of her new book How the Earth Feels : Geological Fantasy in the Nineteenth-Century United States, in which geology is of interest to her as a form of aesthetic and sensory experience. Geological time, for Luciano, offers no guarantee of liberation, neither from our national episteme nor from the world of oppression and inequalities that is our present; it may however invite us, readers, to a closer alignment with the gaze of the dehumanized, to a closer contact with those bodies that have been turned into matter, the supposedly insentient fossils upon which our world however stands.

- 25 Building on these new questions, this issue of *Transatlantica* is an attempt to assess the impact of this reshuffling of scales not only on the making up of literary narratives but also on our ways of reading literature today, in the age of the Anthropocene. The scope of this issue-"American" literature-has simply been dictated by the journal itself, Transatlantica, as well as our own field of expertise; in no way have we tried to reassert the prevalence of the national scale, although our purpose has been to warn against the utopia of "deep time" as "denationalized time," a hypothesis that the texts under study have contributed to disproving. Duly historicized, deep time has not led us to dismiss the national as a frame and agent of literary narrative so much as contributed to turning the national scale into an ever present yet ever contested dimension of the texts under study. The immensities of time, however, are not the only leverage to challenge the scale of nations. In Dimock's later reformulation of her initial project, in 2007, she openly turned to space, instead of time; taking the planet as her new epistemic scope, she wrote, "...the nation is revealed to be what it is : an epiphenomenon, literally a superficial construct, a set of erasable lines on the face of the earth." (Dimock and Buell, 1) Now is the time, she pleads, to think at the level of the human as species, headed or not to (self-)destruction. Reading (American) literature in the Anthropocene—in the age of the human as a geological force—should prompt us to seek what "we" humans have in common and how literature can mediate our capacity for self-erasure, or perpetuation, as a species. The question seems promising at first and is bound to open compelling new vistas. But hold on. Are we not once again swapping one essentialism for another? If the question is: "how can narrative accommodate the planetary scale of the human a species ?" is it literature's province to answer such a question at all?
- ²⁶ In "The Climate of History" (2009), postcolonial historian Dipesh Chakrabarty obliquely addressed this question when he proposed to assess what it means for "us" to be part of the Anthropocene and to what extent the Anthropocene comes to redefine what "we" are. "Who is the 'we' ?" he asks.
- 27 We humans never experience ourselves as a species. We can only intellectually comprehend or infer the existence of the human species but never experience it as such. There could be no phenomenology of us as a species. Even if we were to emotionally identify with a word like mankind, we would not know what being a species is, for, in species history, humans are only an instance of the concept species as indeed would be any other life form. But one never experiences being a concept. (220)
- Chakrabarty is right. His pronouncement, however, is only deceptively final. Literature take this as a working hypothesis—may offer "us" one opportunity to *experience* what it is to be part of species history without losing the irreducible "I"/singularity that (literary) experience is all about. Climate change, Chakrabarty wrote, "calls for a global approach to politics without the myth of a global identity, for, unlike a Hegelian universal, it cannot subsume particularities." (222) Neither does literature. Literature can accommodate the immensities of time and the scope of the planet without dissolving the singularity of one point of view or experience. I'll take but one example : in one of Thoreau's later essays, "Wild Apples," we readers are given both the laws of the species and the taste of each of the apples that the first-person narrator amorously describes ; we are given to share the intimate, sensual experience of munching into one

particular apple, one particular day—something each of us may have experienced individually; something that we for sure have experienced as member of a species that has the capacity to enjoy the fruit, yet also, as species, to destroy it, to wipe it out of the planet and relegate it to an extinct past. If the literary text constructs "us" as a species, it does not sublate our particularities nor does it dismiss the singularity of experience. The universal (human; species) that the text sketches out for "us" is hardly a concept; it emerges as a literary experience of singularity.

²⁹ "I have found out a gift for my fair ; / I know where the fossils abound," whispered Bret Harte's poet-lover. It may well be, after all, that he of the "Geological madrigal" knew better than he thought. Along the corridors of deep time and throughout the immensity of the planet, something abides that resists appropriation : the singularity of a shared experience that one may also call literature.

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NOTES

1. Since 1996, or 01996 according to their own dating methods, The *Long Now Foundation* has tried to "provide a counterpoint to today's accelerating culture and help make long-term thinking more common." Says computer scientist Daniel Hills, who is one of the project originators: "When I was a child, people used to talk about what would happen by the year 02000 [...] and now no one mentions a future date at all. The future has been shrinking by one year per year for my entire life. I think it is time for us to start a long-term project that gets people thinking past the

mental barrier of an ever-shortening future. I would like to propose a large (think Stonehenge) mechanical clock, powered by seasonal temperature changes. It ticks once a year, bongs once a century, and the cuckoo comes out every millennium." This clock is being built in the Sierra Diablo range of West Texas. http://longnow.org/about/ In this issue, Allen and Tilden's essays propose a genealogy of such long-term thinking: Tilden argues that the stone-horse of Lopez's, artefact and essay, anticipates the long-term projection into a world without humans that is at the heart of the Long Now Foundation; Allen sees a presage of its non-human time in the monumental clocks, literary narratives and historical paintings of the last part of the nineteenth-century in the US.

2. For a critique of Gee's own metaphorization, see Monfort's essay, in this issue.

3. "[G]eology's signal contribution to human thought is the discovery of the vastness of the earth's history, a history so ancient that we can comprehend it only as metaphor" (Gould, 224). Quoted in Tilden, in this issue.

4. What was at stake in Fernand Braudel's methodological revolution was nothing less than the way one can, and should, write history. According to Braudel, taking into account the *longue durée* required us to change the focus and rhythm of historical narrative. From then on, historians were to practice "a history in which all change is slow, a history of constant repetition, ever-recurring cycles" (Braudel, *The Mediterranean*, 20)—in harmony, that is, with the more invariable rhythms of the natural world; the emphasis, then, was no longer to be solely put on the rapid shifts in politics, the dramas of "great events," or the birth and demises of nations, but on the longest-term geological time that structured political decisions as well. Because it aligned the short-term political events and the long-term geological and geographical situation of historical actors, Braudelian history allowed for the intersection of multiple time scales within one narrative that was both supra-national and of necessity interdisciplinary.

See, in this issue, Stephen Sawyer's essay, "Time after Time: Narratives of the Longue Durée in the Anthropocene," for an analysis of the Braudelian enterprise.

5. See the first chapter of Dimock's *Through Other Continents: American Literature Across Deep Time*, entitled "Global Civil Society: Thoreau on Three Continents." (7-22).

6. See Paul Giles's review essay on Dimock's book, in which he expressed reservations about "the book's intellectual relationship to the critical methods of comparative literature and New Criticism." (Giles, 572)

7. See McGurl, "The Posthuman Comedy," (534). See also Kadir's review of *Through Other Continents.*

8. See Dimock's next book, the title of which is significant: *Shades of the Planet: American Literature as World Literature* (2007).

9. See Monfort and Luciano, in this issue. James Hutton (1726-1797) challenged the 6000-year Biblical timespan that was still the scope in which many scientists of his time tried to operate.

10. In his 1885 biography of Emerson, Oliver Wendell Holmes famously hailed Emerson's 1837 oration "The American Scholar" as "our intellectual declaration of independence." (115)

11. In a precirculated paper from her new book project entitled "Romancing the Trace," Dana Luciano refers to how the fossilized footprints discovered in Greenfield, Mass., in 1835, rapidly became a event of national importance that found its way in scientific and literary texts of the times. In the next few decades, the tracks were analyzed by many of the eras's most eminent geologists, including Charles Lyell, Richard Owen, and Louis Agassiz, and most extensively by Edward Hitchcock, then professor of chemistry and natural history at Amherst College and the Director of the Massachusetts Geological Survey. They were also cited by Henry Wadsworth Longfellow, Herman Melville, Thomas Wentworth Higginson and others. See also the interview closing this issue.

12. See Michel Imbert's article in this issue.

13. "In the first years of the republic," writes Paul Semonin in *American Monsters*, "American national consciousness was linked to early images of prehistoric nature, and the birth of the nation itself coincided with the creation of its first prehistoric monster, an imaginary creature whose ferocity matched the new nation's desire to conquer the natural world." (2-3).

14. Jefferson never quite let go of his American fiction. He never acknowledged Cuvier's relegation of the American mammoth to the deepest layers of geological time, unlike the Indian relics that he declared to be the remnants of an extinct or soon-to-be-extinguished race to be "collected and deposited in the records of literature." "It is to be lamented then, very much to be lamented, he famously lamented in his *Notes on the State of Virginia*, that we have suffered so many of the Indian tribes already to extinguish, without our having previously collected and deposited in the records of literature, at least of the languages they spoke" (Th. Jefferson, *Notes on the State of Virginia*, 1787).

15. Thomas Carlyle, "Bog of Lindsey" in *Historial Sketches of Notable Persons and Events in the Reigns of James I and Charles I* (éd.), Alexander Carlyle, 4th ed., London, Chapman and Hall, 1902. Quoted in John M. Ulrich, 48.

16. The word "relic" is used in "The Custom-House" to describe both the letter (as a "most curious relic," 36) and the "Indian relics" the narrator says he mentioned in his discussions with Thoreau "in his hermitage at Walden" (28)

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