Description and the Nonhuman View of Nature

Today, when thinking about the divide between literature and science, we may tend to associate literature with the imagination and science with observation and description. The prehistory of this assumption can be traced back to the eighteenth century, when description first emerged as a contested category in urgent need of definition, beyond the traditional rhetorical notion of enargeia, the figure by which an absent object or person is made vividly present through words. As Lorraine Daston, John Bender, Michael Marrinan, Cynthia Sundberg Wall, and I have shown, the practice of description underwent significant transformations in the eighteenth century, as competing regimes of description emerged and were defined in opposition to each other.¹ Denis Diderot and Jean le Rond d’Alembert’s famous Encyclopédie, published over two decades beginning at midcentury, offered three separate entries on description: one for geometry, one for natural history, and one for belles lettres. A later iteration of that work, the Encyclopédie méthodique, added yet another entry on the newly invented genre of descriptive poetry, which purportedly undermined classical poetics by failing to subsume description to narrative or didactic design. Yet the disciplinary landscape operative in these definitions—and in the descriptive practices surrounding them—cannot be easily mapped onto our familiar opposition between imaginative literature on the one hand and scientific description on the other.

In what follows, I will look at two writers from the French eighteenth century whose work illustrates the contingency of modern categories and definitions of description. The first is the famous naturalist and renowned stylist Georges-Louis Leclerc de Buffon, whose multivolume Histoire naturelle spurred the vogue for natural history across Europe in the second half of the eighteenth century.² The second is the once-celebrated but now obscure

ABSTRACT This article looks at two writers of the French eighteenth century, the naturalist Georges-Louis Leclerc de Buffon and the poet Jacques Delille, whose innovative practices of description call into question our modern opposition between literature and science and raise the issue of how literature might be transformed through attention to nonhuman views of nature. REPRESENTATIONS 135. Summer 2016 © The Regents of the University of California. ISSN 0734-6018, electronic ISSN 1533-855X, pages 72–88. All rights reserved. Direct requests for permission to photocopy or reproduce article content to the University of California Press at http://www.ucpress.edu/journals.php?p=reprints. DOI: 10.1525/rep.2016.135.5.72.
poet Jacques Delille, who took the Scottish poet James Thomson as his model and introduced the so-called genre of descriptive poetry in France in the last decades of the Old Regime.\textsuperscript{3} Taken together, these two writers exemplify what the great naturalist and zoologist Georges Cuvier called “the age of description.”\textsuperscript{4} This age has fallen out of view since Cuvier’s lifetime, lost to the modern fracture between literature and science. Yet I will argue that it holds special relevance for us today, at a time when short-story writers and political theorists alike share an impulse to ascribe agency to nonhuman things and to question the centrality of human perspectives. One of the biggest surprises to emerge from the unfamiliar landscape of the eighteenth-century age of description is its elaboration of a poetics of description grounded in dramatic shifts in scale and nonhuman perspectives on nature.

In 1818, Cuvier, whose meticulous studies in comparative anatomy and paleontology had allowed him to prove the extinction of species, gave a speech on the occasion of his induction to the Académie française.\textsuperscript{5} As a scientist being inducted into an academy charged with publishing an official dictionary of the French language and arbitrating questions of usage and taste, Cuvier took up the topic of the mutually beneficial relationship between the sciences and letters in the modern age. He began by noting that his membership among the ranks of the academy was especially fitting at a time when “the sciences extend each day their empire, when nearly their entire idiom seems to pass into the everyday language of which you are charged with collecting the riches and recording the laws.”\textsuperscript{6} At the same time, he warned his fellow academicians that the rise of science and the spread of its language could lead to a dangerous confusion between the objects and methods of science and literature. The purpose of his speech was to map the territories proper to science and literature, even as he emphasized their fertile dialogue in a modern, scientific age.

I begin my discussion of eighteenth-century descriptive practices with Cuvier’s speech because in it, he sketched out a literary history that culminated in a modern age of description. To understand what Cuvier meant by “the age of description,” we must first look briefly at the two earlier ages he included in his sweeping history of the “development of the literature of each people.”\textsuperscript{7} The first was an age of inspiration, exemplified by Homer, Dante, and Milton, in which the poet’s acute sensitivity to nature allowed him to create vivid images for his audience, without analysis or scientific understanding, through a seemingly magic power of poetic inspiration. The second was an age of reflection, exemplified by Plato, the tragic playwright Jean Racine, and the mathematician and moralist Blaise Pascal, in which philosophical and psychological analysis of human nature took precedence over the rich poetic imagery of the previous age. It should be noted that whereas Cuvier illustrated
these first two ages with authors from ancient and modern literary traditions, he reserved the third age of description for the moderns alone, explaining its emergence as a result of recent scientific progress:

Let us not try to find out what were the attempts of ancient writers, when their literature arrived at this third age, the one I would almost call the age of description. What could the talent of Oppian, the melancholy genius of Pliny, do to paint a nature of which the sciences had hardly lifted the veil?

It was to the century of the perfected sciences that it was reserved to celebrate with dignity its miracles.

Hence Buffon and Delille will open this third age for us.  

Although Cuvier credited Buffon and Delille with opening a new age in the history of literature, he did not offer any other exemplars of the age of description in his speech. He thus left his listeners to wonder whether this age was still in its formative stages in 1818 and what its future might look like.

Cuvier also left some doubt as to what exactly he meant by the term “description.” He had muddied waters earlier in his speech by characterizing Homer, who exemplified the age of inspiration, as both a naturalist and a skilled describer: “Homer is a naturalist by the same reason that he is a great poet; he is attentive, exact, because he is sensitive; he describes distinctly, because he is deeply struck.” Apparently, the ability to pen distinct, vivid descriptions of nature was not sufficient to qualify one for the age of description. Cuvier reiterated this idea later in his speech when he observed that after the hiatus of the psychological introspection that marked the second age of reflection, the writers of the age of description “bring letters back to external nature, not as in the past to gather images from it, but to paint in broad strokes its astonishing whole: a fortunate resource that re-opens a vast and fertile domain to the arts of the imagination.” For Cuvier, the writers of the age of description were not essentially image makers; they did “paint” nature, but they did so in a way that grappled with nature in its entirety, in keeping with the encyclopedic aspirations of their century.

This claim might seem counterintuitive to us today, when description is more often associated with myopic detail than with an ability to represent something as vast as nature in its entirety. In fact, Cuvier drew an important distinction between Buffon and Delille with respect to the level of detail in their descriptions and their ability to represent the whole of nature. Despite his evident admiration for these two writers, Cuvier suggested that whereas the poet’s descriptions of nature were excessively detailed, those of the naturalist were overly broad and sweeping:

One, sparkling with verve and wit, will give to French poetry an unknown coloring: the radiance of flowers, of precious stones will shine in his verses; their movement will imitate that of the lightest creatures. The other, noble and grave, will imprint
his prose with the pomp, the majesty that presides over the workings of the universe. How fortunate the first, if from a more elevated point of view he had embraced nature in what is greatest in her! How fortunate the second, if he had deigned to lower himself to grasp more coldly the minute detail! And yet how admirable both of them by virtue of writings that had models neither in antiquity nor among the people of our time!\textsuperscript{13}

Here, we see Cuvier beginning to delineate the opposing values of scientific and literary description: whereas the naturalist must grasp the minute details of nature coldly and without admiration, the poet must celebrate the grandeur of nature by offering a broad, sweeping view. This delineation appears to contradict Cuvier’s assertion that what made the writers of the age of description distinctive was their ability to represent nature in its entirety. It also seems inconsistent with his grouping of Buffon and Delille together under the rubric of the arts of the imagination. In this sense, Cuvier’s speech appears as a site of unresolved tensions in the emerging polarization of scientific and literary description.

Cuvier had drawn an even sharper contrast between scientific and literary description in his 1800 eulogy of Louis-Jean-Marie Daubenton, the naturalist who collaborated with Buffon on the quadruped volumes of the *Histoire naturelle*.\textsuperscript{14} Daubenton was an anatomist who performed careful dissections of many of the hundreds of quadrupeds described in the *Histoire naturelle*. For each quadruped, the reader found a “history” of the animal by Buffon and its “description” by Daubenton (although curiously, despite these appellations, Buffon was widely praised, for the quadruped volumes in particular, as the great describer of his time).\textsuperscript{15} Whereas Buffon’s chapters included information about the animal’s habits, dwellings, food, instincts, and usefulness to man, Daubenton’s chapters focused exclusively on the external and internal form of the animal’s anatomy. Based in dissection and measurement, Daubenton’s descriptions were closely tied to the observational and experimental practices of eighteenth-century natural history. As Lorraine Daston and Mary Terrall have shown, observation was a hands-on practice in the eighteenth century, with naturalists touching, dissecting, and experimenting on the animals and insects they observed.\textsuperscript{16} It was this painstaking, observation-based form of description that Cuvier praised in his eulogy of Daubenton, at the expense of Buffon’s more imaginative, eloquent approach:

Buffon, of a vigorous size, an imposing visage, an imperious nature, eager in all things for rapid enjoyment, seemed to want to guess at the truth, and not to observe it. His imagination placed itself at every instant between nature and himself, and his eloquence seemed to exert itself against his reason before employing itself with carrying off the reason of others.

Daubenton, of a weak temperament, a gentle expression, a moderation that he owed to nature as much as to his own wisdom, brought to all his research the most
scrupulous circumspection; he believed, he affirmed only what he had seen and touched; very far from wanting to persuade by other means than evidence itself, he carefully removed from his speech and from his writings any image, any expression proper to seduce; of an unfailling patience, he never suffered from a delay; he started the same task over and over again until he had succeeded in his opinion, and, by a method perhaps too rare among men occupied with the real sciences, all the resources of his mind seemed to unite in imposing silence on his imagination.  

Through his praise of Daubenton, Cuvier defined the strictures of scientific description: it is closely tied to the observational practices of seeing and touching; it is patient and careful, based in repeated observations; and it eschews both the imagination and the seductions of imagery and eloquence. In contrast, Buffon appears as a writer whose imagination prevented him from observing nature carefully and whose eloquence clouded his own reason and that of his readers. It is tricky to define exactly what Cuvier meant by “imagination,” since the term was in flux in his time. Throughout the eighteenth century, “imagination” was defined in the dictionaries of the Académie française as the faculty by which one represents something in one’s mind; in the *Encyclopédie*, Voltaire emphasized that this faculty was based in memory. But in 1798, this definition was supplemented with the idea—more familiar to us today—of imagination as invention. To the extent that Cuvier referred to Buffon’s imagination as standing between him and nature, it seems likely that he intended the term to convey a degree of invention (that is, something not based in observation or memory) that he considered unsuitable in the naturalist.

It may be useful, at this juncture, to look at some examples of Buffon’s and Daubenton’s differing approaches to description, even though the length and variety of their quadruped chapters make it difficult to provide a representative sample. What follows is just the first sentence of Buffon’s much longer article on the squirrel, quoted in French to give a sense for his renowned style:

*L’écureuil est un joli petit animal qui n’est qu’à demi sauvage, & qui, par sa gentillesse, par sa docilité, par l’innocence même de ses moeurs, mériteroit d’être épargné ; il n’est ni carnacier, ni nuisible, quoiqu’il saisisse quelquefois des oiseaux ; sa nourriture ordinaire sont des fruits, des amandes, des noisettes, de la faine & du gland ; il est propre, lesté, vif, très-alerte, très-éveillé, très-industrieux, il a les yeux pleins de feu, la physionomie fine, le corps nerveux, les membres très-dispos : sa jolie figure est encore rehaussée, parée par une belle queue en forme de panache ; qu’il relève jusque dessus sa tête, & sous laquelle il se met à l’ombre ; le dessous de son corps est garni d’un appareil tout aussi remarquable, & qui annonce de grandes facultés pour l’exercice de la génération ; il est, pour ainsi dire, moins quadrupède que les autres, il se tient ordinairement assis presque debout, & se sert de ses pieds de devant, comme d’une main, pour porter à sa bouche ; au lieu de se cacher sous terre, il est toujours en l’air ; il approche des oiseaux par sa légèreté, il demeure
comme eux sur la cime des arbres, parcourt les forêts en sautant de l’un à l’autre, y fait aussi son nid, cueille les graines, boit la rosée, & ne descend à terre que quand les arbres sont agités par la violence des vents.

The squirrel is a pretty little animal who is only part wild, and who, for his kindness, for his docility, for the very innocence of his habits, would deserve to be spared; he is neither a carnivore, nor harmful, although he sometimes catches birds; his usual foods are fruit, almonds, hazelnuts, beechnuts, and acorns; he is clean, nimble, lively, very alert, very bright, very industrious, he has eyes filled with fire, a delicate physiognomy, a vigorous body, healthy limbs: his pretty face is further enhanced, adorned by a beautiful tail in the form of a panache; which he holds up over his head, and under which he shades himself; the underside of his body is equipped with an apparatus just as remarkable and that indicates a great capacity for the exercise of generation; he is, as it were, less quadruped than others, he generally holds himself in sitting position nearly standing up, and uses his front paws, like a hand, to bring things to his mouth; instead of hiding under the earth, he is always in the air; he is close to birds in his lightness, he lives like them on the top of trees, traverses the forest jumping from one to another, also makes his nest there, gathers grains, drinks the dew, and only descends to earth when the trees are shaken by the violence of the winds.\textsuperscript{19}

We see here some of the characteristic traits of Buffon’s animal descriptions: a focus on the moral qualities of the squirrel (its kindness, innocence, and industry); a corresponding use of personal pronouns to represent the animal as an active presence; striking visual imagery combined with explanations about function (the panache-like tail that serves for shade); and the use of rhythmic, poetic prose to convey a sense of the animal’s movement (the multiplication of short clauses at the end of the passage mirroring the squirrel’s leaps from tree to tree). The stark contrast of Daubenton’s more sober, anatomical approach will be apparent from the opening lines of his description:

The squirrel (plate XXXII [in Daubenton’s original volume]) has a head that is flattened on the sides and very thick, a nose that sticks out, an upper lip that is oriented diagonally towards the bottom and the back, a lower lip that is very small, and eyes that are large, round, black, bulging, and positioned in the top part of the sides of the head, a little closer to the ears than to the nose. The forehead is flat, and its plane is oriented in the same direction as that of the nose; the back part of the top of the head appears elevated, and the ears are positioned on each side; they are of a modest size, but are completed by a tuft of fur that seems to lengthen them quite a bit; this fur is oriented upwards like the ears and is a bit curved back, it is about an inch and a half long.\textsuperscript{20}

A number of features distinguish this description from Buffon’s: it refers to the accompanying plates of the squirrel, which include a living portrait of the animal along with several anatomical illustrations of it being dissected; it uses the technical language of geometry and measurement to describe the squirrel’s physical features; and it breaks down the parts of the squirrel’s
head (nose, lips, eyes, forehead, ears, tufts of fur) in a sort of textual equivalent to a dissection. There is no reference to the squirrel as a living animal, and, in contrast to Buffon’s description, no use of personal pronouns to characterize it.

It is not surprising that Cuvier, whose careful anatomical and paleontological studies had allowed him to prove the extinction of species, should have valued Daubenton’s precise anatomical descriptions over Buffon’s more stylish approach. As Dorinda Outram has shown, Cuvier was generally suspicious of attempts to popularize science, believing that public debates and spectacles would undermine the already fragile claims of the natural sciences to true knowledge; as a bestselling author whose work had fueled the passion for natural history across Europe, Buffon was nothing if not a popular writer. Yet even as he denigrated Buffon’s contribution to science, Cuvier did not hesitate, in an 1826 eulogy to another naturalist, to consecrate his eloquence and reputation as “the most beautiful quill of his century”:

Buffon, who, on the senses, on instinct, on the generation of animals, had only to treat phenomena that still escaped intelligence, could, in limiting himself to painting them, deserve the title that is so legitimately acquired as one of our most eloquent writers; he could deserve it again when he had only to offer grand scenes of nature or the many connections between her productions, or the infinite variety of the spectacle they present to us; but as soon as he wants to work his way back up to the causes and discover them by simple combinations of the mind or rather by the efforts of the imagination, without demonstration and without analysis, the vice of his method is evident to those who are the most informed.

As Vincent Debaene has suggested, Cuvier’s emphasis on Buffon’s eloquence and literary reputation—for which he was destined to immortality—was a backhanded compliment, since it effectively excluded him from an emerging canon of properly scientific writings. More specifically, we see here that Cuvier tied Buffon’s status as an eloquent writer to his ability to “paint” nature (albeit without understanding its workings) and to depict its grandeur from a broad perspective. When it came to explaining nature’s causes, however, Buffon was guilty of relying on his imagination rather than on the rigorous scientific procedures of demonstration and analysis. As such, he deserved to be remembered as an eloquent writer but not as a scientist.

Cuvier’s attacks on Buffon’s scientific method were symptomatic of his effort, in his reception speech to the Académie française, to map out the proper territories of science and literature. Curiously, Jacques Delille, the very poet Cuvier credited alongside Buffon with inaugurating the age of description, criticized Buffon’s descriptions in similar terms. Delille had first gained fame as the translator of Virgil’s *Georgics* and then went on to become the most prolific practitioner and theorist of the fashionable genre of descriptive poetry in France. Although James Thomson’s *The Seasons* was
the initial model for the French descriptive poets, their take on the genre was more explicitly scientific and encyclopedic than Thomson’s had been. Delille in particular sought to realize a sort of equivalent in rhyming verse to the great prose compendiums of his time, Diderot and d’Alembert’s *Encyclopédie* and Buffon’s *Histoire naturelle*. The work that perhaps best incarnated his ambitions was *Les Trois Règnes de la nature* (The three realms of nature), a poem written in rhyming alexandrine couplets in which Delille attempted to offer a comprehensive description of the animal, vegetable, and mineral kingdoms, along with cantos devoted to light, air, and the earth. The eight cantos of the poem—which was published in 1808 but had been composed earlier when Delille was in exile during the French Revolution—were accompanied by voluminous explanatory prose notes, many of which were written by Cuvier himself.

In his preface to *Les Trois Règnes*, Delille acknowledged Buffon as his unparalleled model in the art of description. But he also drew an opposition between the quadruped volumes, in which Buffon’s grandiloquent style and poetic prose distracted from his subject, and the more austere volumes on minerals that Delille claimed to prefer:

If I were permitted to express my opinion on the style of this great man, I would admit frankly that, of all his works, the one whose diction seemed to me most appropriate to its subject is his Treatise on minerals. There, everything is accurate, clear, precise, noble without grandiloquence, rich without profusion: no ambitious images, no superfluous ornaments; nothing exceeds the subject. M. de Buffon knew minerals through the eyes of experience; but he wrote on animals with the interest inspired by their characters, their graces, their beauties, the relations they have with us, and the services they render us. Already, the pomp of style, the exalted ideas, the brilliant and poetic diction which, after having made the fortune of the work, have become, for many readers, an object of reproach.

Here, we get a sense of the kind of description Delille sought to emulate in his poetry: he valued precision and accuracy while eschewing elaborate imagery and ornamentation. Delille’s praise for the mineral volumes is all the more striking because today these are considered the driest and least literary of Buffon’s writings. It is true that Delille quickly backtracked after criticizing the stylistic excesses of the quadruped volumes, observing that “[Buffon], having to paint the marvels of nature, was more authorized to deploy in his work all the pomp of his style and all the riches of his imagination; and how can we fail to appreciate the one who, by the magic of his language, gave such a strong impetus to his century!” Like Cuvier, Delille evidently admired Buffon for having inaugurated a century of description. But overall, he left his readers with the impression that as a descriptive poet, he espoused the values of scientific description delineated by Cuvier. It would seem that Buffon could serve as a model for the descriptive poet only to the
extent that he silenced his imagination and avoided poetic prose—a mixed
genre Delille likened to a monster, a bat, and an amphibian. The denigration
of imagination—closely tied to poetry in the Encyclopédie—is all the more
striking when one considers that Delille was the most popular French poet
of his time and that descriptive poetry had become the dominant poetic
genre in France in the last decades of the Old Regime.29

In criticizing Buffon’s literary excesses, Delille joined Cuvier in policing
the boundary between science and literature. At the same time, he threat-
ened to undermine any clear distinction between scientific and literary
description by taking Buffon’s austere mineral volumes as a model for his
own poetry. While many writers of verse and prose emulated Buffon’s
descriptions, Delille was unusual in claiming to prefer the less famous min-
eral volumes. His claim raises the question of what kind of poetry is pro-
duced when the poet emulates a model of scientific description that
explicitly eschews imagination and even style. This question took on a special
urgency in Les Trois Règnes, where Delille’s verse descriptions were often
juxtaposed with corresponding prose descriptions by Cuvier and other
scientists. In one salient example, Delille described the marvels of the ban-
yan, a tree whose branches fall to the ground only to form the roots of new
branches, initiating a cyclical process of rising and falling branches that
transforms a single tree into a vast canopy:

... ce figuier, dont les vastes branchages,
Qui jadis dans les cieux buvaient l’eau des nuages,
S’affaissant sous leur poids et descendant des airs,
S’en vont chercher des sucs jusqu’auprès des enfers.
De leurs bras enfouis s’élèvent d’autres plantes,
Qui, ployant à leur tour sous leurs charges pesantes,
Forment d’autres enfants, dont la fertilité
Est le gage immortel de leur postérité.
Ainsi, de tige en tige, ainsi de race en race,
De ces troncs populeux la famille vivace
Voit tomber, remonter ses rameaux triomphants,
Du géant leur aïeul gigantesques enfants ;
Et leur fécondité, qui toujours recommence,
Former d’un arbre seul une forêt immense.30

[... this fig tree, whose vast branches,
Which once drank the water of clouds in the skies,
Drooping under their weight and descending from the air,
Go off to the edges of the underworld in search of sap.
From their buried arms rise up other plants,
Which, sagging in turn under their heavy load,
Form other children, of which the fecundity
Is the immortal token of their posterity.
Thus, from stem to stem, thus, from race to race,
From these populous trunks the perennial family
Sees its triumphant branches falling, and rising again,
Of the giant, their ancestor, the gigantic children;
And their fecundity, which is constantly renewed,
Forming an immense forest from a single tree.]

The most obviously poetic elements of this description are the rhyming alexandrine couplets and the use of metaphors and personification (the branches drink from the skies, the tree bears children to create a perennial family). There are also prosodic effects created by the stress on habitually silent vowels, as in the line “De leurs bras enfouis s’élèvent d’autres plantes,” where the stress on the “i” in “enfouis” imitates the effect of the branches being buried underground and the stress on the third “e” in “s’élèvent” imitates the effect of the new branches climbing slowly upwards. Delille was reputed to be an especially skilled practitioner of this technique, known as imitative harmony and considered essential to the descriptive genre.

In other ways, however, the description is relatively straightforward and not so dissimilar to the prose description Cuvier appended to it: “The author describes here one of the most curious trees of the East Indies, the sacred fig (ficus religiosa), whose branches, retaking root when they touch the ground, end up forming an enormous vault of greenery, supported by as many pillars fixed in the ground. The description of this phenomenon, given by the poet, is both so exact and so vivid, that it would be as useless as it would be reckless to add anything to it.”

In his reading of Les Trois Réègnes, Hugues Marchal sees this note as symptomatic of the porosity between scientific and poetic description in the poem and more broadly in a culture that aspired to the unity of scientific and literary discourse. It is striking that Cuvier—who, like Delille, used metaphorical terms such as “vault” and “pillar” in his description—praised Delille’s description for its precision, suggesting that he did not see the poetic form of rhyming alexandrine couplets as compromising accuracy. The fact that the two descriptions mirror each other so closely—the main distinction between them being the poet’s use of rhyme—raises the problem of how far poetic description can go in its emulation of scientific description before it loses its status as poetry.

Delille addressed this problem explicitly in the opening lines of the canto on the vegetable kingdom in which the description of the banyan tree appears. Characterizing his age as one of poetic disenchantment, he insisted that the poet could nonetheless celebrate nature by explaining its workings:

Ils sont passés ces temps des rêves poétiques,
Où l’homme interrogeait des forêts prophétiques ;
Où la fable, créant des faits prodigieux,
Peuplait d’être vivants des bois religieux.

........................
Tout est désenchanté ; mais, sans tous ces prestiges,
Les arbres ont leur vie, et les bois leurs prodiges.
Je veux les célébrer ; je dirai quels ressorts
Des peuples végétaux organisent les corps.\textsuperscript{33}

[They are gone those times of poetic dreams,
When man questioned the prophetic forests;
When fables, creating prodigious facts,
Peopled with living beings religious woods.

Everything is disenchanted; yet, without all the prestige,
Trees have their life, and the woods their marvels.
I want to celebrate them; I will say what workings
Organize the bodies of the vegetable peoples.]

In Delille’s age of poetic disenchantment, the forests are no longer peopled by mythical figures. But trees—like the one described by Delille and Cuvier later in the same canto—have their own life, distinct from the mythical figures that once inhabited them. The evolution from one age to another is signified by the shift from the verb “peupler,” which refers to the mythical peoples at the beginning of the passage, to “peuples végétaux” at the end of the passage. It is the de-peopling of nature’s mythical figures that allows the poet to perceive the plants themselves as its true inhabitants, quite apart from any human identity. For all the loss of poetic prestige associated with this shift, the poet still sees the marvels of the woods as an occasion for poetic celebration, but his celebration takes the more prosaic form of an explanation of nature’s workings.

A similar decentering of human perspective is effected by the dramatic shifts in poetic scale and perspective that are characteristic of Delille’s poetry. As the mathematician Henri Poincaré observed in his reception speech to the Académie française in 1909, “The abyss of the large and the small” has traditionally been a favored theme of scientific poetry.\textsuperscript{34} This holds especially true for Les Trois Règnes, a poem that transcends Cuvier’s oppositions by combining the descriptive minutiae of a Daubenton with the sweeping, imaginative views of a Buffon. In the following example, Delille describes a mite viewed under a magnifying lens, and then goes on to imagine how that same mite could appear as an entire cosmos when viewed from the perspective of an even tinier microscopic being:

\begin{verbatim}
Là s’arrêtent les yeux : mais grâce à ce verre
Qui nous déploie en grand et les cieux et la terre,
Au dessous du ciron je regarde et je vois
Des milliers d’animaux plus petits mille fois.
Là du verre à son tour s’arrête la puissance ;
\end{verbatim}
J’admire avec effroi sa petitesse immense ;
Mais pour d’autres tribus que je n’aperçois pas,
Cet insecte lui-même est peut-être un Atlas ;
La goutte qu’il habite est une mer profonde,
Chaque oeil est un soleil et chaque fibre un monde.  

[There the eyes stop: but thanks to this lens
That displays for us both the skies and the earth enlarged,
Below the mite I look and I see
Thousands of animals a thousand times smaller.
There stops in turn the power of the lens;
I admire with awe its immense smallness;
But for other tribes that I don’t perceive,
This insect is himself an Atlas;
The drop he inhabits a deep ocean,
Each eye is a sun and each fiber a world.]

This passage conveys the fascination that the microscopic studies of naturalists such as John Turberville Needham held for Delille and his contemporaries, in an era when the observational practices of natural history were widely emulated by amateurs. But there is more going on here than simply a shift in scale due to the magnification afforded by a lens. There is also a dramatic, and distinctly unsettling, shift in perspective, as Delille imagines how the mite would look from the vantage point of an even smaller, invisible being. This imagined vantage point opens out entire new vistas to the descriptive poet, as each fiber on the mite’s body comes to appear as an entire world (“chaque fibre un monde”). If, as Cuvier claimed, the genius of the age of description lay in its effort to encompass the entirety of nature, this genius takes on an entirely new dimension when one considers such dramatic shifts in perspective and scale.

The dramatic shift in perspective and scale afforded by the mite’s point of view provokes a sort of poetic terror in the poet, one quite distinct from the terror of classical Aristotelian poetics:

Dans tous ces univers croissant de petitesse,
L’imagination descend, descend sans cesse;
Et, tel que ce mortel qu’en un sommeil profond
Un rêve suspendit sur un gouffre sans fond,
D’effroi saisie tout à coup je m’éveille,
Et du monde en tremblant j’adore la merveille.  

[Within all these universes increasing in smallness,
The imagination descends, descends without stopping;
And, like that mortal who in a deep sleep,
Was suspended by a dream over a bottomless chasm,
Struck with terror all at once I awaken.
And of the world in trembling I adore the marvels.]
In these lines, Delille’s imagination descends into a poetic abyss: there is no limit to the worlds the poet can describe once he reaches beyond his own narrow, human perspective. This, in my view, explains the terror that awakens the poet at the end of the passage. It is not simply the terror of contemplating the possible worlds of the infinitely small, but the terror that comes with a dramatic decentering of the human perspective on nature. We might think here of Aristotle’s reflections in the *Poetics* on the difficulty of envisaging a very small or very large animal, as the basis for a normative model of the proper proportions for a tragedy. These were defined in terms of what an ordinary human could comfortably view, or hold in his or her memory, without the aid of special instruments or the technology of writing.\(^{38}\) Delille’s poetry abandoned this essential principle of classical poetics, not just in practicing a genre unknown to the ancients, but also in displacing man as the proper measure of poetic proportions.

Delille embraced this poetic transgression explicitly in his theoretical writings. In the preface to his French adaptation of Virgil’s *Georgics*, *L’Homme des champs, ou les Géorgiques françaises* (The man of the fields, or the French *Georgics*), published in 1802, he offered a manifesto for the genre associated with his name. Essential to descriptive poetry, he argued, was an all-too-rare poetic sensibility that had been stunted in earlier periods by the exclusive focus on man’s social passions. Delille charged the human-centric dramatic poetry of the French seventeenth century (which Cuvier would class in the age of reflection) with impoverishing poetic language by limiting itself to the representation of human psychology. The rare sensibility of descriptive poetry, in contrast, drew its readers into a meditative contemplation of the objects of nature, quite apart from their relationship to man: “It is that kind of sensibility which, like life, spreads itself over every part of a work; that accords interest to things that are most foreign to man; that makes him participate in the destiny, happiness, and death of an animal, or even of a plant.”\(^{39}\) We may recall here Delille’s uninhabited forests in *Les Trois Reünes*: in the context of the poetic principles outlined here, the absence of mythical creatures in that poem appears as an opportunity for the emergence of this rare poetic sensibility that draws man outside of himself and human concerns. In other words, Delille understood his own poetry, and the descriptive genre more broadly, as effecting a radical displacement of the human perspective on nature.

Delille’s emphasis on nonhuman perspectives takes on an additional resonance when it is inscribed in the context of eighteenth-century advances in the field of geohistory. The historian of science Martin Rudwick has argued that the discovery of deep time was a scientific revolution on the scale of those of Copernicus and Darwin, because it opened out a vast, unexplored history of the earth that was distinct from human history. Buffon had been one of the first naturalists to speculate in a widely read
published work that the age of the earth was much older than the traditional biblical timescale of about six thousand years. On the basis of empirical experiments involving the cooling rates of heated metal balls, Buffon speculated that the earth must be 74,832 years old; his speculations in his unpublished manuscripts were bolder still, with numbers ranging from three million to ten million years. Rudwick has emphasized the extent to which the leap Buffon and his contemporaries had to take to contemplate deep time was above all a leap of the imagination. It is not a coincidence, in my view, that this imaginative leap coincided with Delille’s cultivation of a poetic sensibility grounded in a special attentiveness to nature as distinct from human concerns. Delille’s terror in the face of the inhuman worlds contained in every fiber of his mite’s body signaled the deeply unsettling nature of both deep time and any poetic project that did not place man at its center.

Cuvier concluded his speech to the Académie française on a dramatic note, promising an enduring cooperation between the sciences and letters, but warning that literature must not lose sight of its true mission. He did so by alluding to recent advances in the field of geohistory and the temptations they might hold for literature:

Every research into the depths of the earth increases by a hundredfold the revolutions that it has undergone. Life there covers over ruins; these ruins rest on others: the forms so rich and so varied of this universe were preceded by an infinity of other forms that all had their own varieties and riches.

Haven’t I been mistaken? Among so much greatness won’t man seem quite small? Carried along by all this magnificence, won’t letters forget about him? No, they cannot. Of all these marvels, man is the greatest.

For Cuvier, the recent discovery of the earth’s deep history and species extinction posed an existential threat to modern literature. Yes, literature must continue to be inspired by science in keeping with the great collaborations of the age of description. But in the face of scientific discoveries that reduced man’s place in nature—in the past and potentially in the future through his eventual extinction—it was all the more imperative that literature not lose sight of man. With this assertion, Cuvier contributed to the growing polarization of literature and science that would make the eighteenth-century age of description fall out of view for two centuries. This age had opened exciting new possibilities for modern literature, but almost as soon as it had been inaugurated by Buffon and Delille, it was already nearing extinction.

Today, however, a resurrection of the eighteenth-century age of description seems possible. We are questioning our disciplinary landscape in ways that have brought renewed attention to writers like Buffon and Delille whose work straddles the modern divide between literature and science. Political theorists and short-story writers are challenging the primacy of
human perspectives in the interest of cultivating attentiveness to our natural environment. For Jane Bennett, ascribing agency to nonhuman things is a political project that allows us to inscribe ourselves into a network of relations with the natural world, the waste we produce, and the havoc we wreak.42 A recent article in the New York Times Magazine tells of the American short story writer Joy Williams penning a manifesto for a new kind of literature that relinquishes its obsessive focus on the human, even if Williams seems unsure whether she or anyone else can write it. The discussion of this unpublished manifesto is tantalizingly brief, but it gives the impression that this new kind of literature will somehow involve the contemplation of the beauty of the world in its distinctness from human life, what Williams calls “the mysterious, undeserved beauty of the world.”43 This literature will be full of risks—as Cuvier knew it would be—and if it comes it will perhaps reawaken Delille’s poetic terror and trembling admiration from a long slumber.

Notes

I would like to thank Vincent Debaene, Hugues Marchal, and Alexander Wragge-Morley for their precious comments on an embryonic version of this essay. I am especially indebted to Sharon Marcus for her incisive and transformative reading of a later draft.


3. A comprehensive treatment of Delille’s life and work can be found in Édouard Guitton, Jacques Delille (1738–1813) et le poème de la nature en France de 1750 à 1820 (Paris, 1974). Hugues Marchal has been largely responsible for the recent renewal of interest in Delille’s work and has sought to understand the conditions for Delille’s disappearance from literary history. See in particular his “Quelques conditions d’impossibilité de la poésie scientifique après Delille,” in “La poésie scientifique de Lucrèce à nos jours,” special issue, Sciences et techniques en perspective (2013); “L’Ambassadeur révoqué: Poésie scientifique et popularisation des savoirs au XIXe siècle,” Romanisme 144, no. 2 (2009): 25–37; and his recent anthology of scientific poetry, Muses et ptérodactyles: La Poésie de la science de Chénier à Rimbaud (Paris, 2013).


7. Ibid., 216.

8. Ibid., 227.

9. Cuvier did mention Voltaire in passing, referring to his writings on Newton, but only as a precursor who was far surpassed by Buffon and Delille. See ibid., 227.

10. Ibid., 217.

11. Ibid., 226.


15. This characterization was widespread in the eighteenth and early nineteenth centuries. See, for example, Louis Sébastien Mercier, Le Nouveau Paris, ed. Jean-Claude Bonnet (Paris, 1994), 965. On the division between history and description in the Histoire naturelle, and on Daubenton’s anatomical descriptions, see the first chapter of my Unfinished Enlightenment.


21. See Outram, Georges Cuvier, esp. chap. 6.

22. Cuvier, “Éloge historique de Lacépède,” in Recueil des éloges, 2:382. The characterization of Buffon as the century’s best writer comes from Jean-Jacques Rousseau’s correspondence: “I believe he has equals among his contemporaries as a thinker and a philosopher: but as a Writer, I do not know of any at all. He is the most beautiful quill of his century; I do not doubt that this will be the judgment of posterity”; Rousseau to Pierre-Alexandre du Peyrou, 9 November 1764, in Correspondance complète de Jean-Jacques Rousseau, ed. R. A. Leigh (Oxfordshire, 1974), 22:5.
24. In a more charitable interpretation, Peter Hanns Reill has characterized Buffon’s work as a creative combination of empiricism and broad speculation. See his Vitalizing Nature in the Enlightenment (Berkeley, 2005), 238–39.
25. It is generally acknowledged that James Thomson’s descriptions of nature are more vivid than those of Delille and the other French descriptive poets. See Margaret Cameron, L’influence des “Saisons” de Thomson sur la poésie descriptive en France (1759–1810) (Paris, 1927).
27. This was Jacques Roger’s characterization of the mineral volumes in his Buffon: A Life in Natural History, 399.
31. Ibid., 14:106.
36. On the concrete conditions of these practices, and their visual representations, see Terrall, Catching Nature in the Act.
37. Delille, Trois Règnes, 14:54.
39. I quote this passage from a contemporary English translation of the preface and poem: John Maunde, Rural Philosopher; or, French Georgics: A Didactic Poem, Translated from the Original of the Abbé Delille; Entitled “L’homme des champs” (London, 1801), xviii–xix. For the original, see Jacques Delille, preface to L’Homme des champs, ou les Géorgiques françaises (Paris, 1804), 20–21. The cultivation of attentiveness described by Delille resembles the Pietist “practices of attention” analyzed by Dorothea von Mücke in the first chapter of her Practices of Enlightenment: Aesthetics, Authorship, and the Public (New York, 2015), although the religious dimension is much less pronounced in Delille’s poetry. It also resembles the disciplines of attention in Enlightenment natural history beautifully detailed by Daston. See her “Attention and the Values of Nature in the Enlightenment.”
42. Jane Bennett, Vibrant Matter: A Political Ecology of Things (Durham, NC, 2010).