NATURAL HISTORY AND BRITISH WOMEN WRITERS, 1730-1830

BY

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DISSERTATION

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The late eighteenth-century poet, Maria Riddell, used zoological hybridity as a racial metaphor for West Indian colonies’ potential to foster “British” national identity, with its mixed heritage and allegiances. This is the subject of my dissertation’s second chapter, and what it shows is that, at a time when women writers did not possess political power, some, such as Riddell, exerted cultural authority through the natural sciences. Natural history (comprising the fields of botany, zoology, and geology) dramatically rose in popularity in the latter half of the eighteenth century. During this time, naturalists drew analogies between natural and social orders, arranging “classes” and “kingdoms” in ways that naturalized cultural and national hierarchies. My manuscript, *Natural History and British Women Writers, 1730-1830*, argues that women, including Eliza Haywood, Charlotte Smith, and Mary Shelley, often claimed scientific superiority to naturalists to destabilize seemingly fixed identities and revise not only biological but also social and literary taxonomies. For example, my third chapter explores Anna Seward’s development of a literary taxonomy that interrelates biological and poetic forms. Through this attention to women’s scientific literature, my study also casts new light on the period’s debates about literary originality, with important consequences for our understanding of writers such as Alexander Pope, Oliver Goldsmith, William Wordsworth, and Lord Byron.
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Questioning Nature: An Introduction

In 1761, the famous naturalist and director of the Académie Française, Georges-Louis Leclerc (comte de Buffon), gave a speech celebrating the exploration of Peru by the Académie’s newly-elected member, Charles Marie de la Condamine. He enthralled the audience, illuminating the voyager’s daring descent down the Amazon over dangerous rapids and foaming falls in a dugout canoe. Before closing his lively account, Buffon paused to add with emphatic wonder, “Nature, accustomed to the deepest silence, must have been astonished to hear herself questioned for the first time.”¹ The immense applause meeting this statement evinced naturalists’ pervasive feeling that it was not only in the deepest recesses of South America that nature found “herself” being “questioned for the first time” during this era of unprecedented interest and progress in the natural sciences. Feminizing nature for masculine exploration, Buffon’s declaration embodies a commonplace rhetorical gesture of the new science, as when Francis Bacon earlier urged fellow naturalists to “penetrate from Nature’s antechamber to her inner closet” to “conquer and subdue her.”² Yet, in the midst of this androcentrism and the eighteenth century’s mania for natural history grew a literary phenomenon in which women entered the scientific arena and posed difficult questions – both to nature and to (male) naturalists themselves.

Natural history (comprising the fields of botany, zoology, and geology) dramatically rose in popularity in the mid eighteenth century and succeeding decades.³

² Quoted in Anne Mellor’s “A Feminist Critique of Science.” Carolyn Merchant, Evelyn Fox Keller, and Brian Easlea have delineated the “negative consequences of this identification of nature as the passive female.”
At this time, an ascending, internationally collaborative and competitive generation of naturalists, prominently including Carl Linnaeus of Sweden, Buffon of France, and Thomas Pennant of Britain, strove to configure taxonomies of the natural order. Long eighteenth-century inquiries in the natural sciences analyzed constructions of personhood, of the self, through taxonomic categories. Investigating, for example, the extent to which biological organisms shape and are shaped by their environment, as well as ways in which nature models society. In determining the answers to such questions, naturalists constructed categories defining not only natural objects, but also human subjects, formulating concepts of gender, race, and nation through interpretations of nature and its influence. Through social analogies, naturalists’ taxonomies granted them a sense of understanding and even controlling nature’s relationship to individuals and nations, and of providing insight into virtually every level of existence. In their authoritative knowledge of nature, and goals to find or create order, naturalists pervasively reinforced gender and racial hierarchies. Yet, despite the frequency of such prejudices, their individual observations, classifications, and conclusions regarding the natural order were subject to incessant attack and revision by fellow naturalists. In their publications, Linnaeus and Buffon, for instance, ruthless besieged one another’s methods and taxonomic theories throughout their careers. Naturalists also corrected their own published taxonomies in successive editions as new information or discoveries became available. Projecting this paradox of a simultaneously unquestionable authority and the uncertainty indicative of natural history’s openness to inquiry, taxonomic power structures subjugating various forms of the “other” could be exploited to achieve disparate aims, ranging from upholding the status quo to exposing classificatory failings,
and thus threatening these constructed orders or systems and their social implications. As my study will show, some women writers seized natural history’s analogical opportunities to reconfigure social, national, and even literary orders and identities.

Indeed, this contemporary sense of scientific uncertainty put the line between fact and fiction in doubt, blurring the division between literature and science. In the eighteenth century, the sciences were still in development and would not become disciplines until the early nineteenth century; although I use the word “science” in its modern connotation, previous to science’s professionalization the term could constitute any branch of knowledge, including literature. Capitalizing on this potential fluidity, imaginative writers could debate, disseminate, and contribute scientific knowledge through their literary works. Tim Fulford, Debbie Lee, and Peter Kitson explain that it was not customary formally to divide fictional from factual writing until De Quincey in 1848 made fiction a defining characteristic of the ‘literature of power’ and claimed it was distinct from the ‘literature of knowledge’. By this distinction he fenced off travel writing, natural history, political journalism, to name but a few genres, from the realm of ‘high’ literature – that which communicated across time, through the aesthetic mode of the sublime.⁴

In this distinction, De Quincey’s “high” “literature of power” describes a mode of imaginative writing easily associated with male Romanticism, developed through the works of authors such as Wordsworth, Percy Shelley, and Byron. By contrast, the women’s literature I examine, although often encompassing imaginative genres, makes a point of conveying scientific “knowledge,” marking their participation in a corpus of

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scientific literature, not solely feminine, but attractive to women writers, in part, for gender-specific reasons.

Of course, women were not the only Romantic-era authors incorporating science into literature; male contemporaries and predecessors also sometimes employed science in their literary works. Thus, one of the questions that must be asked of my project is – why women? In her essay, “‘Unsex’d Females’: Barbauld, Robinson, and Smith,” Judith Pascoe reproaches recent feminist criticism for reading women’s literature in gendered terms that portray certain genres, such as sentimental animal poems, as “veiled critiques of masculine power structures” when, in fact, a number of male writers concurrently wrote literature in this genre. I take Pascoe’s caution seriously, considering male writers such as James Thomson, Erasmus Darwin, Wordsworth, and Byron, in their literary engagements with natural history. Literary naturalism formed an important late eighteenth-century trend in which women played a central role, and I am interested in understanding why they were so drawn to it. Although representations of nature pervade Romantic literature, women writers of this era often exhibit a more minutely taxonomic approach to natural objects than their male contemporaries. In different ways, each of the women I study attempts to make meaningful contributions to natural history through her literature, or uses science to affect larger public issues. Wordsworth’s “Preface” to Lyrical Ballads, as I will show, argues for a thorough distinction between literature and science, and Byron employs natural history almost entirely for satirical effect. Although I treat the women writers of my project as individuals, possessing goals sometimes in opposition to one another, they generally view literary appropriation of scientific

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authority as a means to make things happen – to change or uphold established social and aesthetic agendas.

Male authors such as Erasmus Darwin align more closely with these women’s approach of employing literature to convey scientific information with broader cultural effects. Interestingly, even Darwin and other male writers who specifically address natural history repeatedly do so in ways that bring the focus back to women by feminizing nature and science, defining and metaphorically confining women, or discussing science as a subject of women’s study. As I delineate elsewhere in this text, the movement of women’s scientific literature that I trace predates the scientific poetry of Erasmus Darwin, so that even as women writers sometimes responded to his work, his verses’ influence should not be overstated in motivating women’s literary engagements with natural history. Deborah Boyle illustrates that although the notion of separate spheres of activity for men and women “reached its zenith in the mid-nineteenth century,” the concept can be found in the writings of Aristotle, and was certainly in place throughout the eighteenth century. Drawing on naturalists’ methods and taxonomic power, scientific authority provided women with a kind of social leverage in the public sphere, not necessarily appealing to male authors in the same way. Any woman negotiated “a hot zone if her writing advanced the new philosophies of rights and liberties. The temperate zone hosted the home genres: conduct, sentiment, children, cookery.”

Granted, when entering these zones, women could and did achieve comparable influence at this time through discourses of moral conviction (as in anti-slavery campaigns) and Republican motherhood (as in plights for education), and

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7 Susan J. Wolfson, Borderlines: The Shiftings of Gender in British Romanticism (Stanford UP, 2006), 15.
sometimes combined these alternate lexicons of female authority with scientific rhetoric. Moreover, these scientific appropriations helped solidify associations between women and natural history in the public imagination so that, by the early nineteenth century, male scientific professionals (especially in botany) diligently worked to reinstate the masculinity of studying the natural sciences. As I later explain, this feminization also provides further insight into why some male Romantic writers make a point of avoiding or mocking natural history in their literature.

Thus, in *Natural History and British Women Writers, 1730-1830*, I argue that, at a time when women did not possess political power, some of the era’s most prominent women authors exerted cultural authority through the natural sciences. During this time, naturalists drew analogies between natural and social orders, arranging “classes” and “kingdoms” in ways that naturalized cultural and national hierarchies. As I will demonstrate, women writers, including Eliza Haywood, Charlotte Smith, and Mary Shelley, often claimed scientific superiority to naturalists to destabilize seemingly fixed identities and reconfigure not only biological but also social and literary taxonomies. For example, the travel literature of the late eighteenth-century poet, Maria Riddell, engages naturalists’ theories of race and zoological hybridity to gesture toward West Indian colonies’ potential to foster the hybrid “British” national identity. Just so, Anna Seward developed a literary taxonomy that interrelates biological and poetic forms. Through this attention to women’s scientific literature, my study also casts new light on the period’s debates about literary originality, with important consequences for narratives of Romanticism and our understanding of writers such as Wordsworth and Byron.

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8 Sam George, *Botany, Sexuality, and Women’s Writing, 1760-1830: From Modest Shoot to Forward Plant* (Manchester UP, 2007), 177.
My critical account marks the first book-length study of women merging literature and natural history in the Romantic era. It follows these women’s broad generic ambitions, examining their treatment of the natural sciences in poetry, novels, travel narratives, children’s literature, political tracts, literary criticism, and periodicals, and provides wide-ranging attention to natural history’s various fields. Unquestionably, to date, the majority of critical work examining women’s interactions with natural history focuses on botany, and particularly Linnaeus’s popular “sexual system” of plant classification which arranged plants according to their sexual parts. Recent studies by scholars including Ann Shteir, Londa Schiebinger, Judith Pascoe, Alan Bewell, and Samantha George, respectively, examine ways in which botany provided women with a mode of knowledge for addressing sexuality, and for couching social commentary.\(^9\) Even more controversial than botany as a study for women was zoology’s association with anatomy. In historical criticism of this field, Schiebinger delineates how Linnaeus used zoology to influence women’s breastfeeding habits, and Bewell explores zoology’s role in colonial climatology.\(^{10}\) Scholars such as Noah Heringman and Ralph O’Connor additionally document the exchange of ideas between literary Romanticism and the developing discipline of geology, primarily focusing on male authors.\(^{11}\) My work owes a debt to all of these pioneering studies. Since the era’s naturalists and women writers


often intermixed botanical, zoological, and geological references, I pursue their interrelations of these fields.

Devoting each of my chapters to analysis of a separate woman author, I display that each had individual methods and goals in her literary uses of natural history. Each of the writers I address teaches us something different about why the natural sciences interested women of this era, as well as why women ultimately could not sustain this literary movement beyond the 1830s. More complete understanding of the cultural causes leading to these shifts in women’s engagements with natural history will importantly inform Romantic-period studies. While traditional narratives of Romanticism view the major male Romantics as reacting to mimetic and artificial tropes of Augustan poetics and the culture of sensibility, I argue that these male writers also reacted to this more immediate literary movement that incorporates Enlightenment concerns with order and sensibility’s moral and emotive injunctions. By merging literature and science, the women writers of my study strove to achieve a form of literary originality through attention to nature decades before Wordsworth wrote his “Preface” to Lyrical Ballads. My project affords the opportunity to juxtapose these women’s approaches to nature with that of canonical male writers, and to examine how women authors’ emphasis on the rational, accurate modes of natural history interplays with concepts of imagination. This study thus suggests how previous narratives of literature in the long eighteenth century must change to encompass the implications of this corpus of women’s scientific literature. To provide a better understanding of the beginnings and scope of this women’s literary movement, my next section discusses early eighteenth-century literary examples of natural and social analogues, as well as the importance of
periodicals, especially those written by and for women, in encouraging women’s study and even superiority in the natural sciences.

**Haywood and Lennox: Hierarchies, Periodicals, and Women’s Scientific Superiority**

Due to conventional associations of women with nature, eighteenth-century naturalists’ newly-configured taxonomies negotiated a spectrum of restrictive, as well as potentially liberating, implications for women and society; these implications further presented women with the challenge of participating in natural history without appearing sexually transgressive. Naturalists’ observations of sexual dimorphism often preoccupied their descriptions of biological species, highlighting assumptions about gender behavior. Indeed, specialists and non-specialists alike could call upon nature to substantiate social correlations, even when such analogies countered naturalists’ findings. For example, earlier in the century, Joseph Addison’s *Spectator* No. 128, on “Variety of Temper,” dated 27 July 1711, asserts that “Women in their nature are much more gay and joyous than men.” However, this “natural” gender division is, by Addison’s own admission, just the opposite of that which may be found in nature, and in ornithology in particular. As Mr. Spectator notes, “Natural historians observe…that only the male birds have voices [and]…whilst the hen is covering her eggs the male generally takes his stand upon a neighboring bough within her hearing; and by that means amuses and diverts her with his song during the whole time of her sitting.” The male bird exhibits the accomplished arts of entertainment that, in humans, typify the bounds of female education. We are thus informed that in birds, “the cares and fatigues of the married state…lie principally upon the female” while, in “our species,” women employ “little arts” to “cheer and animate her
[male] companion,” who is occupied “in a constant and assiduous application to the making a provision for his family, and the educating of their common children.” Although this displays a disjunction between nature and society, Addison treats gender differences in the behavior of birds as an inverted human analogue, reinforcing “what seems to have been the general intention of Nature, in the different inclinations and endowments which are bestowed on the different sexes.” Thus, even when natural history does not reflect the gender relations Addison desires, he still invokes science to make his version of social order seem authoritative and “natural.” Presenting gender roles as distinctly separate, and reversible between species, Addison’s gender dichotomy undermines women’s social contributions, even within the domestic sphere.

Such analogies between natural and social orders appear sporadically in literature throughout the Augustan period. In the first half of the eighteenth century, analogical uses of natural history occur primarily in the writings of men, in part because during that and preceding eras scientific texts were mainly written in Latin, and thus inaccessible to most readers, and especially to women. Perhaps one of the best-known instances of an Augustan author employing natural history as social analogy occurs in Alexander Pope’s *Essay on Man* (1733), where he insists on species’ fixity within nature’s “chain of being.” Envisioning the natural order as a hierarchical progression of sensory and intellectual capacities, Pope explains that

> Far as creation’s ample range extends,  
> The scale of sensual, mental pow’rs ascends:  
> Mark how it mounts, to Man’s imperial race,  
> From the green myriads in the peopled grass.  

(ll. 207-10)
Within a framework of natural history, Pope justifies this hierarchy of zoological species, including the mole, lynx, lion, dog, spider, bee, pig, and elephant, in accordance with their particular qualities and behaviors. He emphasizes species as distinct and unblending so that even minute gradations remain “Forever sep’rate, yet forever near!” and “never pass th’insuperable line!” (ll. 224, 228). For later women writers, such as Maria Riddell, Anna Seward, and Charlotte Smith, this idea of nature as fixed and hierarchical formed a matter of debate as concepts of hybridity became increasingly prominent in scientific discourse. In his early delineation of a natural taxonomy, Pope cites humanity’s powers of “reason” as placing them at the top of the terrestrial chain, and likens this natural order to the class system. Exhorting each person to feel satisfied with his or her station, he explains that “Man’s as perfect as he ought; / His knowledge measured to his state and place” (ll. 70-1). These lines meaningfully encompass both “Man” as a species in the universal order and “Man” the individual occupying “his” particular place in society. Revealing that “one step broken, the great scale’s destroyed” and “The least confusion but in one, not all / that system only, but the whole must fall,” Pope urges the maintenance of social as well as natural hierarchies lest “All this dread ORDER break – for whom? for thee? / Vile worm! – oh madness, pride, impiety!” (ll. 244, 249-50, 257-8). In Pope’s conception, to desire to change one’s place in these hierarchies, divinely ordered by God, is something akin to blasphemy. He thus prescribes pride of place, contentment with one’s station, for as he resoundingly declares, “Whatever Is, is RIGHT” (l. 294).

By the mid-eighteenth century, naturalists expressed unprecedented urgency in their quests for knowledge and interpretations of nature, and encouraged public
participation to speed their progress. Scientific texts, traditionally printed in Latin, began being written or translated into English with increasing rapidity, and therefore became available to a wider audience, including women. Periodicals crucially contributed to this dissemination of knowledge of natural history. While scientific texts, especially those including illustrative plates, could be exorbitantly expensive, the affordable price of periodicals made this information accessible to a broader public. Often including summaries of naturalists’ latest arguments, systems, and discoveries, periodicals also provided space for amateur contributors to voice their thoughts about these findings. Moreover, some magazines promoted the natural sciences’ specific appeal for women.

Two of the first periodicals written by and for women, Eliza Haywood’s *The Female Spectator* (1744-6) and Charlotte Lennox’s *The Lady’s Museum* (1760-1), advocated women’s study of science in empowering terms. Through both her periodical persona, the Female Spectator, and her (probably fictional) male contributor, Philo-Naturae, Haywood presents natural history as a field in which women’s knowledge can surpass that of men. She assures women readers that the amount of study required to gain proficiency in scientific pursuits easily could be accomplished over the course of a single summer (3.139). Her periodical also encourages women to carry miniature microscopes during excursions through “fields, meadows, and gardens” to analyze plants and insects encountered along the way (3.133). She lauds the ant, bee, common fly, caterpillar, and snail for minute beauties, abilities, and behaviors that reveal intricate worlds of wonder upon close inspection. Like Pope, Haywood points to social analogy, describing bees, for instance, as possessing such “oeconomy, order, and policy, as might render them patterns for the best regulated government” (3.135). She additionally uses
nature to advocate contentment with one’s place in society; delineating several species of
caterpillars and explaining that “the properties of each being so alike valuable, that none
would be a gainer by the exchange,” she draws a social parallel, asking, “Wherefore then
ought not we, who pretend to reason, to be
content with the station in which we are
placed?” (3.254, 255).

However, Haywood departs from preceding male writers when she radically
argues that women’s engagements with the natural sciences could achieve new
discoveries and recognition in the most prestigious scientific societies. Her supposed
contributor, Philo-Naturae, writes that, through their studies and observations of minute
aspects of the natural world, women

would doubtless perceive animals which are not to be found in the most accurate
volumes of natural philosophy; and the royal society might be indebted to every
fair Columbus for a new world of beings to employ their speculations. To have
their names set down on this occasion, in the memoirs and transactions of that
learned body, would be gratifying a laudable ambition (3.138).

The Female Spectator reveals her own efforts toward this ambitious goal when she and
the periodical’s other fictional female characters spend “a few days at a country seat”
with microscope in hand (3.140). Although she willingly receives scientific information
from “a very ingenious gentleman, who sometimes assisted our speculations,” she also
questions his assertions and conducts her own experiments rather than taking him at his
word (3.253). For example, when this gentleman explains that a species of caterpillar
they find “is of the Camelion kind, and changes its hue according to the weather,” the
Female Spectator outlines an experiment for testing this theory, “for though I am willing
to pay a due deference to the judgment of that gentleman, I am rather apt to believe the
colour of these animals more owing to their food than the air they breathe” (3.255).
Haywood thus promotes women’s authority to determine scientific truths for themselves,
apart from male guidance. Indeed, she presents natural history as specifically suited for
women since men engaged “either in employments for the service of the nation, or in
trades, or other avocations…cannot be expected to bend their thoughts this way; but the
ladies, and those gentlemen who have many vacant hours upon their hands, could not,
methinks, employ them in a more agreeable manner” (3.256). Poised to dominate
discoveries in science, women both possess the potential for scientific superiority to
“professional men” and set an example for the leisure class, prompting Philo-Naturae to
exclaim, “I am in very great hopes, that as the Female Spectator has led the way, a great
many, not only of her own, but our sex likewise, will follow her in these so beneficial
enquiries” (4.42). Haywood shrewdly gestures toward women’s scientific supremacy as
inseparable from feminine propriety through frequent allusion to God.12  As Philo-
Naturae delineates, “the study of nature is the study of divinity. – None versed in the one,
I am confident, will act contrary to the principles of the other,” and the Female Spectator
affirms that “a sincere and ardent love to God would be conveyed to us through our
admiration of his works” (3.140, 141).

Most eighteenth-century naturalists justified their work through this ability to
offer insights into the divine. British conservatives sometimes argued against women’s
study of zoology and botany’s Linnaean sexual system of plants, mainly due to emphasis
on anatomy and sexual reproduction that incited, for instance, satirical verses on the

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12 See Kristin M. Girten, “Unsexed Souls: Natural Philosophy as Transformation in Eliza Haywood’s
sensitive plant or *Mimosa pudica* as a thinly-veiled reference to the penis.\(^{13}\) In often-cited verses, Richard Polwhele recoils at the thought of “boys and girls botanizing together” while girls’ “bosoms heave” and “pant” at the sight of plants’ “organ[s] of unhallow’d lust.”\(^{14}\) However, the simultaneous potential for women to develop greater piety formed a compelling counterargument for women’s access to science. Indeed, natural history could be promoted as improving not only women’s souls, but also their bodies and minds. The late eighteenth century acknowledged crisis in women’s bodies, for while the culture of sensibility made fainting and sickly-pale complexions fashionable for women, conforming to the vulnerable and dependent embodiment of “virtue in distress,” such constitutions obviously decreased women’s abilities to perform domestic and motherly duties, let alone to survive childbirth. In contrast, the study of natural history encouraged young women in healthful exertions, searching for plants, insects, and other natural objects for inspection. Educational writers of natural history such as Priscilla Wakefield claimed that pursuing the natural sciences thus “contributes to health of body and cheerfulness of disposition, by presenting an inducement to take air and exercise.”\(^{15}\) Additionally, women’s reading of natural history texts signified improvement to women’s minds, not simply because of the acquisition of new scientific knowledge, but also because of what it meant women would *not* be reading. In particular, if women were busy in pious pursuits of science, they may spend less time reading novels. In the second half of the eighteenth century, readers, critics, and conduct books expressed great concern about novels’ corruption of young women’s minds and

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\(^{13}\) James Perry’s *Mimosa, or the Sensitive Plant* (1779).

\(^{14}\) Richard Polwhele’s *The Unsex’d Females* (1798), ll. 31, 29, 33.

hearts with excessive “passion and pleasure,” producing “false expectations” and solipsistic worldviews.\(^{16}\) Natural history instead grounded young minds in material reality, directing their attention outside the self and then to higher pursuits.

In her own novel, *The Female Quixote* (1752), Charlotte Lennox satirizes this genre’s influence over developing female minds when her main female character interprets her daily life as the plot of a novel, perceiving herself as its heroine. Somewhat paradoxically, given her efforts in the novel genre, Lennox’s periodical, *The Lady’s Museum*, directs young women’s intellect away from novels and toward more serious undertakings, such as the natural sciences. She argues that “in the enumeration of those studies which the fair sex may properly be permitted to employ some part of their time…history and natural philosophy [stand] foremost in the list” (1.129). Further, she joins Haywood in suggesting that these are “areas in which women may equal and even excel men.”\(^{17}\) Lennox’s periodical includes several sections on natural history, illuminating, for instance, “the metamorphoses of animals,” “the natural history of the *formica leo* or lion pismire,” “the methods Nature has furnished various animals with to elude the attacks, and pervert the pursuits of their enemies,” and “the natural history of the swallow-tailed butterfly.” Manipulating the separate spheres philosophy, “Lennox makes male intellectual activity seem pointless, pedantic, obscure, and esoteric” in its narrow application to particular professions, and portrays women’s knowledge as more diverse and culturally aware.\(^{18}\) This intellectual distinction between the sexes marks a

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\(^{17}\) Iona Italia 203.
\(^{18}\) Italia 204.
clever technique also prominently employed by Anna Barbauld, the author at the center of my first chapter.

**Categories of Inquiry: Chapter Outlines**

In the trajectory of this manuscript, I argue that, for a time, science aided women’s transcendence of the private sphere and participation in debates of national importance. Drawing on naturalists’ systems, methodologies, and early notions of evolution, these women reconceived both literary originality and existing categories of social and national identity, as when Anna Seward created a literary taxonomy comparing new species of biological organisms with new “species” of poetry to gesture toward formation of the literary canon. Over the course of six chapters, I trace the renovating possibilities natural history held for women writers as well as how, after the 1820s and ‘30s, it became impossible for women to practice scientific literature in the same way.

My study begins in the latter half of the eighteenth century, when naturalists, racing to describe and classify biological organisms, called for the aid of amateur observers whose knowledge of local ecologies could help map the natural order. Chapter one examines just such a call on non-specialists, namely poets, to aid these scientific pursuits. John Aikin’s *An Essay on the Application of Natural History to Poetry* (1777) asserts that poets should closely observe nature both to assist naturalists and to find original subjects for verse. His *Essay* directly invites women poets by foregrounding the verses of his sister, Anna Barbauld. Despite Aikin’s gesture, Barbauld represents a conflicted image of the poet-naturalist, for while she attributes novelty to natural history poetry, she also theorizes that poetic use of the science should extend only to objects and
phenomena already familiar within the public imagination. She thus anticipates Wordsworth’s critique of scientific poetry later expressed in the “Preface” to *Lyrical Ballads*.

Barbauld highlights West Indian plants as unfamiliar and therefore inappropriate specimens for poetry, yet it is precisely to the West Indies that my second chapter turns. Chapter two focuses on the transatlantic travel literature of the poet Maria Riddell. I claim Riddell draws on naturalists’ theories of hybridity to present West Indian colonists of Scottish, Welsh, Irish, and English origin as hybrid “Britons” in a now-shared experience of common values and a broader sense of national (rather than regional) allegiances. Scientific conceptions of hybridity also inform my third and fourth chapters which explore poetic originality within the context of Anna Seward’s famous accusations of plagiarism against rival poet Charlotte Smith. Chapter three asserts that Seward’s thinking about literary imitation was shaped by a belief in fixed biological forms that tended to see newness as divisible into two categories: those of originality and hybridity. Distrusting deviations from originality, Seward considered Smith’s and Erasmus Darwin’s poetic plagiarisms to be degenerate, stylistic hybrids and precluded them from her literary taxonomy, constructed to reflect the natural order. Chapter four, in turn, takes up this question of science’s relation to literary originality from the perspective of Charlotte Smith. Punning on natural history’s practice of collecting, Smith’s poetic borrowings achieve what I term “collective originality,” yet her efforts to produce original works finally lead to her troubling realization that the copying of *nature* may just as easily draw accusations of plagiarism as the copying of *art*. 
Smith’s eventual skepticism about natural history as a means to literary authority and originality parallels Helen Maria Williams’s late doubts about the science in the political realm. Chapter five analyzes connections between Williams’s changing perceptions of natural history and the political climate in France. Early in her career, Williams identified natural history with the republican, humanitarian ideals of the French Revolution, which she especially associated with the scientific voyages of Captain James Cook. By the 1810s, however, her depictions of natural history emphasize another kind of cosmopolitanism, associated with the South American explorations of Alexander von Humboldt and his totalizing ambitions over nature, which Williams represents as Napoleonic conquest and egotism.

Chapter six echoes Williams’s disillusionment with scientific generalizations. I argue that Mary Shelley’s _The Last Man_ (1826) critiques the homogenizing notion of species extinction by shifting Georges Cuvier’s geological catastrophism into the “world” of the individual, the private. Unlike the women writers in my previous chapters, Shelley expresses science in terms more conventionally associated with the literature of the male Romantics even as her focus on domesticity differentiates her from that literary tradition. Although these effects had been in motion for some time, in the 1820s, developing Victorian ideals of feminine propriety combined with the increasing professionalization of natural history to make it more difficult for women to discuss science outside of domestic discourse. My Epilogue analyzes Felicia Hemans’s geological poems as responding to these cultural conditions. Her poetry exemplifies, I claim, an alternate, domestically oriented literary and social potential that sets the new standard for women’s scientific literature in succeeding decades.
Chapter 1

To Think and to Please: Anna Barbauld’s Poetry and Educational Prose of Natural History

In a letter to Samuel Coleridge, Charles Lamb vehemently censured writers of contemporary educational texts, exhorting his friend to “[t]hink what you would have been now, if instead of being fed with Tales and old wives fables in childhood, you had been crammed with Geography & Natural History.? Damn them. I mean the cursed Barbauld Crew, those Blights & Blasts of all that is Human in man & child.”¹⁹ Opposing imaginative tales to cold, hard facts of reason, Lamb condemns Anna Barbauld and other writers of children’s literature who propound “soul-killing rationalism.”²⁰ Vexed by natural history’s encroachments into the bulwarks of imagination, Lamb laments that “Science has succeeded to Poetry no less in the little walks of Children than with Men.” Barbauld certainly encouraged rational application to the natural sciences, for example, in her letters “On Female Studies,” stating that natural history comprises a discipline it is “unpardonable not to know.”²¹ However, her interest in such study, particularly for women, facilitates a more complicated negotiation of poetry and science than Lamb’s “curse[s]” suggest. Indeed, Barbauld interrogates the melding of science and literature so that her moderate views arguably function as a middle point, a comparative touchstone that provides insight into those of the first generation of male Romantics and of other women writers in my project, such as Charlotte Smith. Her engagements with natural history do not produce the simple hierarchy denounced by

²¹ William McCarthy and Elizabeth Kraft (eds), Anna Letitia Barbauld: Selected Poetry and Prose (Toronto, CA: Broadview P, 2002) 480. Henceforward, unless otherwise documented, all references to Barbauld’s poetry and prose will be cited from this work and appear by page number directly in this chapter’s text.
Lamb as privileging rational thinking over imaginative pleasures. Rather, as I will show, pleasure crucially informs Barbauld’s incorporation of science into verse, her advocacy of women’s writing, and her distinction between poetry and prose. For her, the achievement of pleasure and success in descriptive verses of natural history depends on poets’ careful mediation between particular and general observations, as well as on readers’ familiarity with the scientific information presented. To understand these interrelated issues, it is useful first to turn to one of Barbauld’s educational essays – exactly the sort that provoked Lamb’s damning critique.

**Definition vs. Description: Defining Descriptive Poetry**

Barbauld’s essay, “A Lesson in the Art of Distinguishing,” comprises one of fourteen pieces she contributed to *Evenings at Home* (1792-96), a collection of stories for children, chiefly authored by her brother, John Aikin. Employing dialogue, one of Barbauld’s favorite literary forms, her “Lesson” entails an edifying exchange between a young boy, Charles, and his father. Here, by posing questions designed to determine exact differences between a horse and a number of other creatures, including a cow, cabbage, and salmon, Father leads Charles to a naturalist’s precise definition: “A horse is an animal of the quadruped kind, whole-hoofed, with short erect ears, a flowing mane, and a tail covered in every part with long hairs….he has six cutting teeth in each jaw.”

For Barbauld, the purpose of this exercise, as delineated by Charles’s father, is the acquirement of rational skills: “I have not given you a definition to teach you what a

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horse is, but to teach you to think,” for “nothing is more useful than to learn to form ideas with precision and to express them with accuracy.”\textsuperscript{24} It seems to go without saying that a later Charles (Dickens, that is) almost certainly parodies this exchange in his novel, \textit{Hard Times}, where the definition of a horse is famously demanded by the “square finger” of Gradgrind in a story that condemns those who exact hard facts and reasoning from children at the expense of imagination.

But while Barbauld’s essay most obviously demonstrates how to “distinguish” rationally the horse from all other creatures, it points to another kind of distinction as well. Barbauld presents the young Charles as unsatisfied with the naturalist’s scientific definition of a horse, with its fixed number of teeth and so forth. He instead prefers to “say it was a fine large prancing creature, with slender legs and an arched neck…and that he snorts and neighs very loud…and runs as swift as the wind.”\textsuperscript{25} Charles then quotes an eloquent verse depiction of a horse from Pope’s translation of Homer, to which his father replies, “You have said very well; but this is not a \textit{Definition}, it is a \textit{Description}.” Father informs Charles that

A description is intended to give you a lively picture of an object, as if you saw it; it ought to be very full. A definition gives no picture to those who have not seen it; it rather tells you what its subject is not, than what it is, by giving you such clear specific marks, that it shall not be possible to confound it with any thing else; and hence it is of the greatest use in throwing things into classes. We have a great many beautiful descriptions from ancient authors so loosely worded that we

\textsuperscript{24} Ibid., 136.
\textsuperscript{25} Ibid., 134.
cannot certainly tell what animals are meant by them; whereas if they had given us definitions, three lines would have ascertained their meaning.  

To this Charles replies, “I like a description best.”

The difference between “definition” and “description” marks Barbauld’s distinction between scientific prose and descriptive poetry, especially descriptive nature-poetry. The poetic description of the horse (potentially “so loosely worded that we cannot certainly tell” what animal is meant by it) is less precise, but, by Charles’s estimation, more pleasing, than the definition in scientific prose, so apt for a naturalist’s system of classification. The extent to which poetic description might appropriately meld with scientific definition is a question with which Barbauld struggled and, indeed, one which she posed to her brother, John Aikin, in reaction to his important Essay on the Application of Natural History to Poetry (1777).

Aikin’s Essay advocates the melding of poetry and the natural sciences, arguing that this combination will enable modern poets to achieve novelty in their verse. He deplores that poets have become content merely to copy the phraseology and natural observations of their poetic predecessors: a practice that hinders the production of original works. To combat the stagnation resulting from imitation of previous poets, Aikin recommends instead a closer imitation of nature itself through accurate observation, claiming that nature’s multiplicity constitutes an inexhaustible resource for poetic subject matter enabling poets to attain not only novelty, but also greater aesthetic and moral value, for “nothing can be really beautiful which has not truth for its basis.”

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26 Ibid., 135-6.
27 John Aikin, An Essay on the Application of Natural History to Poetry (Warrington, 1777) 25.
Aikin’s essay additionally establishes patriotic undertones through its dedication to the British naturalist, Thomas Pennant, who authored the popular natural history text, *British Zoology* (1768-70), nine years earlier. In fact, Aikin assisted Pennant in revising this zoology, the Preface of which emphasizes the need for descriptive poets’ knowledge of natural history.\(^\text{28}\) Pennant suggests a reciprocal relation in which nature provides a vast store of “metaphors, allusions, or descriptions” while the poet lends “life and motion to every object.”\(^\text{29}\) In his *Essay*, Aikin presents himself as furthering Pennant’s cause, hoping to inspire poets as “fellow-labourers” in the research of natural history.

Significantly, in recommending the study of natural history to poets, Aikin carefully notes that the identity of the ideal “poet-naturalist” is not “confined to the adept in systems and proficient in names.”\(^\text{30}\) Rather, “it is intended to comprise every one who surveys natural objects with a searching and distinguishing eye; whether he consider them singly, or as part of a system, whether he call them by their trivial or learned appellations.” This gesture of inclusion crucially embraces the participation of amateur naturalists and thus opens the door directly for women.

Advocating this kind of nature poetry, Aikin promises immense scientific authority to poets. Although he reveres Pennant as an exemplary naturalist, Aikin suggests that poets should not confine themselves too didactically to propounding any naturalist’s particular system of natural history. Indeed, he subordinates naturalists’ authority to that of the poet, stating that poets will, through acute observations of nature, often acquire a knowledge of natural history that, in fact, surpasses that of the naturalists themselves. Further, Aikin represents this as a particularly virtuous pursuit that can

promote moral instruction and sentimental associations, as, for instance, when a live
decoy duck unknowingly attracts, and thus entraps, his fellows. Analyzing poetic
passages, Aikin gauges the successes and failures of numerous classical and modern
poets in recording accurate observations of nature, citing the works of Homer, Virgil,
Pliny, Milton, Gray, and, of course, Thomson. He particularly admires the correct natural
descriptions in Thomson’s *The Seasons*, hoping some “second Thomson” will convert
Pennant’s scientific definitions of biological species into verse. In this vein, it is
interesting to note the direction of suggested influence. Should science be incorporated
into literature, or literature into science? Most of Aikin’s examples from the literary
tradition display the former, so that a writer begins with a literary theme and briefly
employs a natural-historical comparison to enliven his description. However, by
recommending Pennant’s prose as a basis for novel poetry, Aikin urges poets to ground
their subject more firmly in science itself.

Significantly, he singles out Barbauld’s poem, “To Mrs. P[riestley], With Some
Drawings of Birds and Insects” (1773), as an example of how successfully to versify
observations of natural occurrences. He highlights her description of the chrysalis stage
of insect development, “the transformation of the caterpillar…to its butterfly state,” into
which she then incorporates a literary allusion to Tasso. Anchoring her verse in *science*,
this literary allusion merely enhances her natural description. Through minute account of
the final stage of pupae transformation, Barbauld makes natural processes note-worthy in
verse and even, through very adherence to reality, hauntingly surreal in depiction. She
portrays these insects immured in their cocoons:

Entomb’d, beneath the filmy web they lie,

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And wait the influence of a kinder sky;
When vernal sun-beams pierce their dark retreat,
The heaving tomb distends with vital heat;
The full-form’d brood impatient of their cell
Start from their trance, and burst their silken shell;
Trembling a-while they stand, and scarcely dare
To launch at once upon the untried air;
At length assur’d, they catch the favouring gale,
And leave their sordid spoils, and high in Ether sail.

So when Rinaldo struck the conscious rind,
He found a nymph in every trunk confin’d;
The forest labours with convulsive throes,
The bursting trees the lovely births disclose,
And a gay troop of damsels round him stood,
Where late was rugged bark and lifeless wood. (ll. 75-90)

Barbauld repeatedly emphasizes the cocoon as a “tomb” from which the fully transformed butterflies “burst” to “leave their sordid spoils” of earth behind in their ascendance to the “Ether” so that these insects progress from a metaphorical death into (immortal) life, fulfilling the spiritual connotations associated with butterflies in classical mythology. In fact, the subsequent literary comparison arguably restrains the sublimity of the natural phenomenon that seems more akin to apocalyptic Christian resurrection than to the merely mortal birthing process suggested by Tasso’s fictional trees. In

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32 Butterflies were traditionally associated with souls in Greek mythology; and, in ancient Greek, the word for butterfly is “Psyche,” which translates to “soul.”
Barbauld’s poetic execution, science takes precedence; her natural description does not preclude imagination but versifies actual processes in nature. Aikin would later state that “the most vivid imagination cannot paint to itself scenes of grandeur equal to those which cool science and demonstration offer to the enlightened mind….The most faithful pencil…produces the noblest pictures.”

In his Essay, Aikin thus exemplifies Barbauld as a model poet-naturalist, and he was not alone in praising her poetic treatment of the natural sciences. For instance, a critic from the Monthly Review, on examining her 1773 volume of poetry, also lauded this particular poem, noting that “It abounds with hints of considerable knowledge in natural history, and is void of affectation and philosophic pomp.”

It is perhaps, to some degree, this undesirable potential of “philosophic pomp” that prompted Barbauld’s desire for deeper consideration of how poems of natural history should be configured.

When Aikin sent Barbauld a copy of his Essay on the Application of Natural History to Poetry, Barbauld displayed some hesitation about the consequences and scope of her brother’s plan. While she is “clearly of [his] opinion, that the only chance we have for novelty is by a more accurate observation of the works of Nature,” she also sought a more specific explanation of the theory to preclude its abuse in practice.

She writes,

it would not have been amiss if you had drawn the line between the poet and natural historian; and shown how far, and in what cases, the one may avail himself of the knowledge of the other,—at what nice period that knowledge becomes so generally spread as to authorize the poetical describer to use it without shocking the ear by the introduction of names and properties not

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sufficiently familiar, and when at the same time it retains novelty enough to
strike.

Barbauld appears chiefly bothered by Aikin’s assertion that, through accurate
observation, poets might become better, more informed naturalists, than the naturalists
themselves. This isn’t to say that Barbauld thought poets incapable of surpassing
naturalists in knowledge of nature; but while Aikin states that poets’ accurate
observations will produce poems of greater “novelty,” Barbauld cautions with the need
for readers’ “familiarity” with the natural object being described. She explains that her
concern arises from having “seen some rich descriptions of West Indian flowers and
plants,—just, I dare say, but unpleasing merely because their names were uncouth, and
forms not known generally enough to be put into verse.” It is unclear whether she alludes
to the scientific or common names of these West Indian plants as “uncouth” but, if the
latter, then perhaps she suggests an aesthetic problem similar to that lamented by Aikin
himself when he favors a West Indian tree’s Latin name, “Palma Maxima,” rather than
“wretchedly degrad[ing]” its “dignity and grandeur” with “its vulgar name of the
Cabbage tree!”36 Still, “uncouth” also connotes unfamiliarity, and because she here
refers to plants of the West Indies, both their common and scientific names presumably
would be unfamiliar to most British readers. Her concern for the “uncouth” makes a
degree of familiarity requisite to this “novel” poetry and thus qualifies the natural-
historical knowledge available for use by the poet. When the poet’s scientific
knowledge, gained through observation, surpasses that of the naturalist, the poet is in
danger of overreaching his or her bounds, that is, overreaching the poet’s function for the
reader. She cautions, “It is not, I own, much to the credit of poets,—but it is true,—that

36 John Aikin, Essay on the Application, 147.
we do not seem disposed to take their word for any thing, and never willingly receive information from them.”

For Barbauld, poetry is not an appropriate venue for “new” scientific findings. While natural history can bring “novelty” to verse, the incorporated scientific observations must not be so novel that they detract from the reader’s pleasure in the poem, presumably by provoking confusion in unfamiliarity of facts or doubts as to the subject’s validity.

Perhaps we can view Barbauld’s “To Mrs. P[riestley], With Some Drawings of Birds and Insects,” as her own example of how modern, descriptive nature-poetry should work in practice. Throughout the poem, she presents several species of birds and insects without enough specificity to easily distinguish them from all others. Barbauld’s most recent editors, William McCarthy and Elizabeth Kraft, have performed admirable original research, seeking to identify the exact species intended in this poem, citing references to Pennant’s zoology for corroboration of Barbauld’s bird descriptions and suggesting that Barbauld “may have derived her West Indian insect descriptions from…the Dutch naturalist Maria Merians.”

However, while their identifications, especially of the bird species meant by Barbauld, are very plausible, I find it more interesting that these descriptions may be considered (to again quote Barbauld’s “Lesson in the Art of Distinguishing”) “so loosely worded that we cannot certainly tell what animals are meant by them.” Barbauld offers general names for the birds in this poem, such as Eagle and Pheasant, but these names do not in themselves denote particular species. In Pennant’s zoology, he lists three different species of eagles, so that the burden is on the reader to

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38 McCarthy and Kraft, *Selected Poetry and Prose*, 44.
piece together clues from Barbauld’s description if wishing to identify which eagle is
“meant” by the verse:

The tawny Eagle seats his callow brood
High on the cliff, and feasts his young with blood.
On Snowden’s rocks, or Orkney’s wide domain,
Whose beetling cliffs o’erhang the western main,
The royal bird his lonely kingdom forms
Amidst the gathering clouds, and sullen storms;
Thro’ the wide waste of air he darts his sight
And holds his sounding pinions pois’d for flight;
With cruel eye premeditates the war,
And marks his destin’d victim from afar:
Descending in a whirlwind to the ground,
His pinions like the rush of waters sound;
The fairest of the fold he bears away,
And to his nest compels the struggling prey.
He scorns the game by meaner hunters tore,
And dips his talons in no vulgar gore. (ll. 31-46)

Barbauld does not shy away from nature’s red teeth and claws, the bloody “gore” of
“struggling prey.” She maintains a majestic depiction of the bird while refusing to
compromise or sanitize factual description. Consulting Pennant, McCarthy and Kraft
hypothesize with convincing accuracy that Barbauld has the Golden Eagle in mind, for
“Pennant notes its presence in the Orkney Islands and occasional appearances ‘in
Snowden hills’ (Wales).” More difficult to conjecture, however, are the identities of Barbauld’s West Indian insects:

See the proud giant of the beetle race;
What shining arms his polish’d limbs enlace!
Like some stern warrior formidable bright
His steely sides reflect a gleaming light;
On his large forehead spreading horns he wears;
And high in air the branching antlers bears;
O’er many an inch extends his wide domain,
And his rich treasury swells with hoarded grain. (ll. 113-120)

This description would seem to fit a number of beetle species in Britain as well as in the West Indies. In her portrayals of both birds and insects, Barbauld provides just enough specificity to elicit familiarity; her details of environment, food, physical characteristics, and behavior offer enough information that one wants a footnote because she does seem to have particular species in mind, yet we get none. Presumably, Barbauld thought the species described either familiar enough to require no footnote (as perhaps in the case of the birds), or that her description would be a sufficient mixture of accuracy and generality, presenting “a lively picture of an object, as if you saw it,” to avoid “uncouthly” intruding on poetic pleasure (as she may have feared for her description of West Indian insects). Barbauld’s poem displays accurate observation and knowledge of natural history, but does so in a manner that balances imaginative pleasure with a paradoxically familiar novelty of information—that is, an ability to make the familiar seem novel through closeness of observation. Barbauld provides further critical backing

39 Ibid., 46n1.
for this approach in her Essay on Akenside’s Poem on the Pleasures of Imagination (1795), where she argues that “the Muse would make a very indifferent school-mistress. Whoever therefore reads a Didactic Poem ought to come to it with a previous knowledge of his subject; and whoever writes one, ought to suppose such a knowledge in his readers.” Indeed, her essay opens with the declaration that “Didactic, or perceptive Poetry, seems to include a solecism, for the end of Poetry is to please, and of Didactic precept the object is instruction” (1). Even as she adopts natural history to verse, for Barbauld, the primary purpose of poetry is to please, whereas that of her scientific prose is to teach.

**Natural Theology and Nature’s Prose**

Sixteen years after Barbauld’s Poems (1773) brought her national renown, John Aikin wrote a dedication declaring his own and countless parents’ gratitude for her subsequent “condescension” to pen educational texts for children. For many succeeding generations in Britain and America, Barbauld’s name remained associated with vivid childhood memories of learning to read and piously relate the self to the natural world through her Lessons for Children (1778) and especially her Hymns in Prose for Children (1781). By writing in prose, Barbauld claimed to correct an error in what she deemed the only other book in existence “calculated to assist [children] in the devotional part of” religion, Isaac Watts’s Divine Songs attempted in easy Language for the Use of Children (1715), which couches its devotionals in poetry. According to Barbauld, she writes Hymns in prose rather than verse because “the very essence of

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40 The Pleasures of Imagination by Mark Akenside, M.D. to which is prefixed a Critical Essay on the Poem, by Mrs. Barbauld (London, 1795) 2-3.
poetry is an elevation in thought and style” that should not “be lowered to the capacities
of children,” nor should children read poetry until capable of appreciating it (237).
Moreover, Barbauld’s insistence on poetry as a mode of writing by which even adults, let
alone children, “never willingly receive information,” doubtless influenced this
pedagogical decision as well. Within these prose works, Barbauld combines her religious
principles with the natural sciences, each of which significantly shaped her own youth
and methods of teaching.

Growing up in a family of Presbyterian Dissenters who prized the attainment and
dissemination of knowledge, when Barbauld was fifteen, her father, Reverend John
Aikin, became tutor in languages and belles letters, and subsequently of divinity, at the
Dissenting academy at Warrington, Lancashire. Around this time, he also corresponded
with the English botanist, Richard Pulteney, with whom he discussed various herbariums
in conjunction with Linnaeus’s *de Generibus Plantarum, Systema Naturae, Species
Plantarum, and Amoenitates*, and objected to Linnaeus’s theory of the creation of plants
and animals as incompatible with the Mosaic account.42 Aikin’s botanical pursuits and
readiness to engage with science’s religious implications helped encourage his children
toward a study of natural history that would permeate their future literary endeavors. The
Warrington school boasted prowess in various scientific fields, and Joseph Priestley
tutored there from 1761-67, where he performed many of his experiments in natural
philosophy and, with his wife, Mary, became close friends with Barbauld. This exposure
to education in the sciences influenced Barbauld’s teaching in turn and, when she and her
husband later ran a boys’ school at Palgrave, she sometimes incorporated the natural

42 This reference to creation is in Linnaeus’s *Amenitates*. Thanks to the Linnean Society of London for
access to this correspondence. See also McCarthy, *Voice of Enlightenment*, 43.
sciences, as when she enlivened geography with detailed descriptions of “the natural history of animals.” It was while at Palgrave that Barbauld wrote *Hymns*, synthesizing her dissenting beliefs and this classroom instruction.

In *Hymns*, Barbauld seeks to teach the child reader “to see the Creator in the visible appearance of all around him, to feel his continual presence, and lean upon his daily protection” (237). By conditioning children to appreciate God through his works in nature, Barbauld employs a brand of natural theology we may trace to the late-seventeenth-century British naturalist, John Ray. Dissenters viewed science as “a means to the worship of God,” and Ray himself had been a dissenter, easily combining his science and theology. Ray made notable advancements in the knowledge and classification of fish, insects, and plants, was credited as the founder of British zoology by Pennant, and has been recognized as the father of British natural theology for his endurably popular text, *The Wisdom of God manifested in the works of Creation* (1691).

In his preface to *British Zoology*, Pennant declares that Ray’s writings “fully prove that the study of natural history enforces the theory of religion and practice of morality,” and that “veneration towards the Almighty, is the principal end of this sublime science.”

Much of Barbauld’s *Hymns* for children reads as a simplified version of the natural-theological tenets of Ray’s *Wisdom*. When Ray, for instance, references Psalm

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45 Pennant, *British Zoology*, Preface, x. Pennant claims this distinction for Boyle and Derham along with Ray.
46 On several occasions Barbauld expressed admiration for William Paley’s treatise, *Natural Theology* (1802), which borrowed extensively from Ray’s earlier text. She lauds Paley, perhaps most memorably, in her poem, *Eighteen Hundred and Eleven* (1812), where she imagines future American children benefiting from Britain’s then-ancient intellectual tradition so that “Thy [Britain’s] Lockes, thy Paleys shall instruct
148, which calls upon the sun, moon, stars, mountains, trees, and all creatures “to praise the Lord,” he asks the rhetorical question, “How can that be? Can senseless and inanimate things praise God?” Ray resolves this biblical paradox by explaining that these creations instead “[afford] matter or subject of praising him [God], to rational and intelligent beings” (Ray 111). If nature cannot praise, it does incite humans to praise the Creator of such works. Just so, Barbauld’s *Hymns* instructs children that “The birds can warble, and the young lambs can bleat; but we can open our lips in his praise, we can speak of all his goodness. Therefore we will thank him for ourselves, and we will thank him for those that cannot speak” (240). In Ray’s text, he goes on to state that “man is commanded to consider [vegetables, beasts, birds, and insects] particularly, to observe and take notice of their curious structure, ends, and uses, and give God the praise of his wisdom, and other attributes therein manifested” (Ray 112). Addressing the “child of reason,” Barbauld likewise advocates close attention to nature, not merely for the sake of gaining knowledge of nature, but also to attain knowledge of God. When the child recounts the various plants and animals spotted during his walk through the meadow, the educating narrator chides, “Didst thou observe nothing besides? Return again, child of reason, for there are greater things than these. – God was among the fields; and didst thou not perceive him?...God is in every place; he speaks in every sound we hear; he is seen in all that our eyes behold: nothing, O child of reason, is without God” (245, 246).

Emphasizing the ability to know God through nature, Barbauld also imparts specific knowledge of the natural sciences.

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their youth, / Thy leading star direct their search for truth” (ll. 87-90). Nevertheless, Barbauld incorporated natural theology into her works long before Paley’s book hit the press.

In Hymn IX, Barbauld delivers botanical lessons during an imaginative excursion on which she describes the physical structure and environmental location of various trees and plants, using their common names, such as fir, grey willow, mallow, daisy, tulips, iris, water-lilies, and so on. She organizes plants including the snow-drop, primrose, carnation, and laurustinus according to their respective patterns of growth — “They are marshaled in order: each one knoweth his place, and standeth up in his own rank” (251). In this way, beyond the reference to chronological blooming, her taxonomic rhetoric of “order” and “rank” alludes to more advanced botanical lessons like those offered in her essay, “On Plants,” as well as, arguably, exposing young readers to conservative conceptions of social order and class-relations, by which “each one knoweth his place.” She paradoxically encourages both the (religious) impossibility of fully understanding God’s works, and the (Linnaean) quest to “discover” all the world’s species and configure an order reflective of divine design: “They that know the most, will praise God the best; but which of us can number half his works?” (252). Barbauld’s challenge to the child reader implies that even if the taxonomic task of “number[ing] half his works” remains always out of reach, the tacit point, as begun by her own list and brief descriptions of plants in Hymn IX, is to try.

“Thy Bounded Sphere”: Women’s Education, Women’s Poetry

In its natural theology, Barbauld’s Hymns does not target one sex over the other, and her poetic and educational writings often address society’s gendered divisions of scientific study. As noted earlier, natural history formed an important part of student instruction at the Warrington academy, and although Barbauld was not permitted to
enroll in this all-male institution, she made the most of conversing with students, tutors, and male family members and friends, and later would recommend such discussions as the best way for women to attain an education. She benefited from the school’s intellectual environment, reading broadly and even teaching herself Latin and Greek, and absorbing the academy’s particular strength in the natural sciences. However, Barbauld’s poetry sometimes displays a subtle tension in her relation to science due to her sex, a tension that her stance as a poet somewhat assuaged. For example, her poem in celebration of Warrington, “The Invitation” (1773), positions the poet as the ultimate naturalist, scrutinizing the school’s scientific students as natural objects for her own study:

Some pensive creep along the shelly shore;

Unfold the silky texture of a flower;

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49 Writing to Pulteney, Aikin praised the progress of a particular student in botany demonstrating this discipline’s importance to the school’s curriculum (Letter 9, Warrington 1760 June 30; Linnean Society of London). Barbauld recommended this method of learning in her letters “On Female Studies” (McCarthy and Kraft, Selected Poetry and Prose, 482).

50 William McCarthy and Elizabeth Kraft (eds), The Poems of Anna Letitia Barbauld (Athens: U of Georgia P, 1994) 227. Barbauld had to convince her father to let her study these classical languages (Aikin, Works, Memoir, 1:vii).

51 Several scholars have commented on Barbauld’s influence over her younger brother, John Aikin, as well as on her possible jealousy of her brother’s greater educational opportunities. In her poem, “To Dr. Aikin on His Complaining that She Neglected Him, October 20th, 1768,” one can hear Barbauld’s struggle to smother her complaint against the inequality of the siblings’ educational and professional range, an inequality based entirely on sexual, not intellectual, difference:

Our path divides – to thee fair fate assign’d
The nobler labours of a manly mind:
While mine, more humble works, and lower cares,
Less shining toils, and meaner praises shares.
Yet sure in different moulds they were not cast
Nor stampt with separate sentiments and taste.
But hush my heart! nor strive to soar too high,
Nor for the tree of knowledge vainly sigh;
Check the fond love of science and of fame,
A bright, but ah! a too devouring flame.
Content remain within thy bounded sphere,
For fancy blooms, the virtues flourish there. (ll. 50-61)

Barbauld consoles herself by suggesting, as she does in “On Female Studies,” that her “bounded sphere” nevertheless particularly suits her to the occupation of poetry.
With sharpen’d eyes inspect an hornets sting,
And all the wonders of an insect’s wing.” (ll. 155-58)

In observing observers of nature Barbauld depicts her removed place outside of the academy, of the sanctioned attainment of this scientific knowledge, and also assumes a more privileged position, despite this exclusion, exerting superiority that belittles these inchoate (male) naturalists who creature-like “creep” while she records their movements in her natural description. She thus preserves her humor through a female perspective of poetic objectivity that analyzes both the science and the scientists themselves.  

Barbauld argued for women’s attainment of knowledge in the natural sciences, even stating it to be imperative that young women be educated in “natural history, astronomy, botany, experimental philosophy, chemistry, physics” (480). Indeed, in the last quarter of the eighteenth century, “botany was considered a science particularly suited to women” and was prescribed for women to “provide pleasure and instill virtue.” Of course this association of women, botany, and pleasure famously incited criticism from conservatives such as Richard Polwhele, who, in his poem, The Unsex’d Females (1798), exasperatedly wonders, “how the study of the sexual system of plants

52 Further demonstrating Barbauld’s sense of humor and appreciation of this science’s entertainment value, she inserted elaborate natural-historical comparisons and references into her letters that show her wry wit by, for instance, likening her lack of intellectual productivity to the state of an animal in hibernation, “the only difference being, that I have all the while continued the habit of eating and drinking, which, to their advantage, they can dispense with” (Aikin, Works, 2:97); or conjecturing about the transmigrating spirit of her turkey dinner: “I hope it is animating some other vehicle, and rising by degrees in the scale of existence, till perhaps it may come at length (who knows) to eat turkey itself” (Aikin, Works, 2:98); or pardoning infrequent correspondence with a friend by admitting that her motivation to write “is rather like the aloe, that after having been barren season after season shows signs of life all on a sudden, and pushes out when you least expect it” (Aikin, Works, 2:68).

53 Eagerly keeping abreast of the scientific advancements made in her age, Barbauld sometimes attended lectures at the Royal Institution, as on one occasion when she “was much pleased to see a fashionable and very attentive audience, about one third ladies, assembled for the purposes of science and improvement.” (Aikin, Works, 2:67).

can accord with female modesty.” Barbauld’s separate listings of natural history and botany simultaneously endorse botany’s propriety for women and, under the broader category of natural history, tacitly sanction the learning of zoology (among the other fields of ornithology, entomology, conchology, etc.), the anatomical studies of which were even more controversial than that of botany in women’s education. In her letters “On Female Studies,” Barbauld advocates women’s learning of natural history by arguing that women specifically will “take what belongs to sentiment and utility” and “feel the mind struck with lively gratitude,” observing God through his creation. She informs young women that natural history will teach you not to despise common things, will give you an interest in every thing you see. If you are feeding your poultry, or tending your bees, or extracting the juice of herbs, with an intelligent mind you are gaining real knowledge; it will open to you an inexhaustible fund of wonder and delight, and effectually prevent you from depending for your entertainment on the poor novelties of fashion and expense (480).

Barbauld’s insistence on the primacy of “sentiment and morals” in women’s education seeks to establish natural history as a decorous female pursuit, inciting useful productivity as well as moral and intellectual pleasure. Working within the bounds of domesticity and sensibility, Barbauld presents natural history as a traditionally feminine realm that can counteract the corruptive attractions of fashionable society.

Through this framework of sentiment and domestic knowledge, Barbauld maintained sexual divisions of labor to assert the merit and scope of women’s industry. In delineating women’s education, she advertised the separate studies of a young man and
a young woman “to be chiefly fixed by this, -- that a woman is excused from all professional knowledge.” As her most recent editors suggest, Barbauld’s dry statement of women’s preclusion from professions of science, law, politics, etc., in contemporary British society is a pronouncement of fact rather than an endorsement of this status for women (474). Operating within these prescribed bounds, Barbauld elucidates women’s potential for superiority. Although men may claim specialized professional knowledge, “which is nowise valuable in itself, but as a means to that particular profession,” women arguably have the upper hand in their claim to “general knowledge” – “a woman ought to have that general knowledge of [all studies] which marks the cultivated mind” (481).

More specifically, according to Barbauld, woman’s situation in society “fit her in a peculiar manner for the worlds of fancy and sentiment, and dispose her to the quickest relish of what is pathetic, sublime, or tender.” To women, “therefore, the beauties of poetry, of moral painting, and all in general that is comprised under the term of polite literature, lie particularly open” (477). By emphasizing women’s superior sensitivity in all ranges of feeling, especially in sentiment’s association with imagination and morality, Barbauld asserts a subtle claim to women’s “profession” in poetry.

For Barbauld, the necessity of pleasure to poetry importantly shapes science’s function in verse, and helps appropriate poetry more generally as the territory of women. To illustrate this further, I would like to offer a new way of understanding what has become perhaps Barbauld’s most infamous poem: “To a Lady, With Some Painted Flowers” (1773). Nearly twenty years after its publication, Mary Wollstonecraft attacked Barbauld’s poem, quoting it in full in the notes to her A Vindication of the Rights of Woman (1792), as I quote it here:
Flowers to the fair: To you these flowers I bring,
And strive to greet you with an earlier spring.
Flowers sweet, and gay, and delicate like you;
Emblems of innocence, and beauty too.
With flowers the Graces bind their yellow hair,
And flowery wreaths consenting lovers wear.
Flowers, the sole luxury which nature knew,
In Eden’s pure and guiltless garden grew.
To loftier forms are rougher tasks assign’d;
The sheltering oak resists the stormy wind,
The tougher yew repels invading foes,
And the tall pine for future navies grows;
But this soft family, to cares unknown,
Were born for pleasure and delight alone.
Gay without toil, and lovely without art,
They spring to cheer the sense, and glad the heart.
Nor blush, my fair, to own you copy these;
Your best, your sweetest empire is—to please.

Wollstonecraft complained that Barbauld’s botanical analogy endorses an “error…which robs the whole [female] sex of its dignity, and classes the brown and fair with the smiling flowers that only adorn the land. This has ever been the language of men, and the fear of departing from a supposed sexual character, has made even women of superior sense
[Barbauld] adopt the same sentiments."⁵⁵ According to Wollstonecraft, Barbauld presents women as specimens to be objectified and classified alongside plants and other natural objects in “language” that dehumanizes them through absolute separation of the sexes. A more fruitful understanding of the poem that Wollstonecraft seems to miss, however, applies Barbauld’s analogy with flowers as much to poetry itself as to women. The “Painted Flowers” referenced in the poem’s title as brought to this unknown “Lady” may even refer to additional poems, perhaps on the subject of plants (as in Barbauld’s “To Mrs. —, on Returning a fine Hyacinth Plant after the Bloom was Over”), a reading made likely through ut pictura poesis. The poem’s meaning expands easily when reading “flowers” as additionally alluding to both women and poems. Through this association, poetry’s purpose is to “please and delight,” anticipating Keats’s insistence on the ease of a subject’s inspiration and versification, as Barbauld claims that poetry should be “Gay without toil, and lovely without art” (ll. 14, 15).⁶⁶ If she endorses an existing, sexist equation of women with nature, she also subtly shifts the analogy’s power structure to make nature-poetry the province of women writers. Since, according to Barbauld, the primary purpose of poetry, and of nature-poetry in particular, is to produce pleasure, who better to fulfill this literary task than women, whose very “empire,” Barbauld states, in a ventriloquization that converts degradation into advantage, “is—to please” (l. 18). She forces men into the merely bodily, physical associations usually imposed on women, so that while men are “roughe tasks assign’d” of defending the nation from “invading foes,” women are here, as in “On Female Studies,” afforded “more leisure” to pursue knowledge and literary accomplishment (ll. 9-11). A potentially ironic undertone persists

⁶⁶ I refer to Keats’s poetic “axioms” as expressed in his letter to John Taylor, February 27, 1818.
in Barbauld’s poetic allusions to men’s “loftier,” professional endeavors. Rather than calling for the dismantling of sexual hierarchies with the overt gusto that exposed Wollstonecraft to immediate censure, Barbauld urged that women’s “empire” is “Felt, not defined, and if debated, lost,” working within traditional distinctions among the sexes to procure less obvious, but perhaps more functional, leverage. Barbauld acknowledges her own motivational role of providing poetic models for subsequent women writers to emulate, stating in the poem’s penultimate line, “Nor blush, my fair, to own you copy these” (l. 17). As William McCarthy notes, numerous female poets wrote enthusiastic verse tributes to Barbauld and credited her with inspiring their poetry.

Barbauld’s subtle reformulations of women’s literary power within this structure of poetic/moral pleasure and natural history may have escaped Wollstonecraft’s detection, but Polwhele condemned her alongside Wollstonecraft in *The Unsex’d Females*. Barbauld confounded others, like the reviewer of her *Poems* (1773), who complained of not being able to find the “Woman” in her verse. Her gender came under further attack when Coleridge, Lamb, and Southey mistakenly attributed to her a negative review of Lamb’s *John Woodvil*, and subsequently perverted her name to “Bare and Bald” – attempting to neutralize her critical power via an assault on her femininity.

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57 This is a quote from Barbauld’s “The Rights of Woman” (l. 14). As Stuart Curran notes, Barbauld strives for “liberation through, not from, femininity,” “The I Altered” in *Romanticism and Feminism*, ed., Anne K. Mellor (Bloomington: Indiana UP, 1988) 197.
59 Monthly Review 48 (1773): 133. Also, see McCarthy’s book article on this subject, “‘We Hoped the Woman was Going to Appear’: Repression, Desire, and Gender in Anna Letitia Barbauld’s Early Poems” in *Romantic Women Writers: Voices and Countervoices*. Eds. Paula R. Feldman and Theresa M. Kelley (Hanover: UP of New England, 1995) 113-37.
These men’s efforts to de-sex Barbauld demonstrate the perceived threat of her literary influence and of her expanded territorial claims for women in literature.

**The Science which is Not One**

Barbauld’s *Poems*, published in 1773, predate by sixteen years Erasmus Darwin’s long poem, *The Botanic Garden* (1789), which is often credited with inspiring many women’s verses on natural history. As several scholars have noted, Darwin’s poetic depictions of flowers as human analogues in *The Loves of the Plants*, the second part of *The Botanic Garden*, reinforce established female stereotypes, not in themselves particularly liberating. However, Darwin directly appeals to women, describing his work as “diverse little pictures suspended over the chimney of a Lady’s dressing-room, connected only by a slight festoon of ribbons,” and announces his purpose “to induce the ingenious to cultivate the knowledge of BOTANY,” and thus many women viewed his verses as sanctioning a poetic and intellectual opportunity. Women such as Arabella Rowden, Sarah Hoare, and Charlotte Smith wrote poems appropriating Darwin’s structure and theme. In her published letters, Anna Seward declared that Darwin’s poem fulfilled “the union of natural history and of modern philosophic science with poetry…the desideratum in the fanes of the muses” as set forth in the Essay on the Application of Natural History to Poetry by “the ingenious and learned Dr. Aikin.” Barbauld herself was “quite fascinated” with Darwin’s versification of the Linnaean sexual system of plants and “talked of it with rapture,” for which she was, in fact,

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61 See, for example, Sam George, *Botany, Sexuality, and Women’s Writing, 1760-1830* (Manchester: Manchester UP, 2007) 111.
62 Erasmus Darwin, *The Botanic Garden, Part II. Containing The Loves of the Plants, A Poem with Philosophical Notes* (Lichfield, 1789) ix, vi.
“scolded” by Samuel Rogers. It is, however, unsurprising that Barbauld found Darwin’s poem appealing. Whereas Aikin, like Pennant, favored the versification of zoology as “the noblest part of natural history” and discouraged botanical poetry, Barbauld rejoined, “I should not have confined the track quite so much as you have done to the animal creation, because sooner exhausted than the vegetable; and some of the lines you have quoted from Thompson [sic] show with how much advantage the latter may be made the subject of rich description.” Darwin’s botanical poem, versifying a naturalist’s system already familiar to the public, thus fulfills Barbauld’s vision for natural history poetry more than Aikin’s. Moreover, her approval makes sense in terms of the poem’s formal arrangement, which upholds her ideological division between poetry and prose.

In *The Botanic Garden*, Darwin supports his imaginative verse with scientific prose footnotes, creating a division that correlates with Barbauld’s idea that the primary purpose of prose is to teach and that of poetry is to please. In his poem’s first “Interlude,” Darwin generates a dialogue between two characters, the “Bookseller” and the “Poet,” in which the Bookseller asks “what is the essential difference between Poetry and Prose?” Darwin’s answer to this question recalls both Barbauld’s distinction

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64 Alexander Dyce (ed.), *Recollections of the Table-Talk of Samuel Rogers* (New Southgate, 1887) 182.
66 This Interlude’s dialogue begins with the Bookseller’s complaint that “Your verses, Mr. Botanist, consist of pure description, I hope there is sense in the notes” (Darwin, *Botanic Garden*, 40). Darwin’s italicization of pure description and sense echoes an assertion in Aikin’s essay of literary criticism on Thomson’s *The Seasons*, published the previous year. There, Aikin demonstrates concern for legitimizing descriptive poetry, noting that prior to Thomson’s poem it was assumed that, in poetical practice, “pure description was opposed to sense; and binding together the wild flowers which grew obvious to common sight and touch, was deemed a trifling and unprofitable amusement” (Aikin, *Essay on the Plan and Character*, vii). For Aikin, Thomson succeeded in legitimizing descriptive poetry by fashioning a “progressive series of descriptions” that are not arbitrary, but contribute to “a general plan” (ix). Thus when Darwin’s Poet claims, “I am only a flower-painter, or occasionally attempt a landskip,” he lacks Aikin’s anxiety about proving that descriptive verse does not preclude “sense”; instead, Darwin embraces their separation.
between poetic description and scientific prose definition in her “Lesson in the Art of Distinguishing” as well as her early concerns expressed to Aikin about the extent to which science should enter verse. Darwin’s Poet asserts that the distinction between poetry and prose is that

Poetry admits of but few words expressive of very abstracted ideas, whereas
Prose abounds with them….the Poet writes principally to the eye, the Prose-writer uses more abstracted terms….Science is best delivered in Prose, as its mode of reasoning is from stricter analogies than metaphors or similes.  

Darwin’s poetic metamorphosing of plants into human analogues appears so divorced from the content of his scientific prose footnotes that one modern scholar, looking for the botanical sciences in Darwin’s verse, felt compelled to ask, “where have all the flowers gone?”  

Indeed, Barbauld’s verse arguably incorporates a greater degree of science than Darwin’s, but his theoretical distinction between poetry and prose reflects that drawn by Barbauld when she writes that poetry of natural description “is intended to give you a lively picture of an object, as if you saw it” while prose scientific definitions adhere to abstract characterizations that lend themselves to classification. Importantly, this distinction between scientific abstraction and visual particularity participates in a philosophical debate much-discussed over a century earlier and that continued to provoke naturalists’ argument into the first quarter of the nineteenth century.

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67 Darwin 41, 43.
In its earlier manifestation, at the center of this natural history debate were the ideas of John Locke.\(^{69}\) Gaining the enmity of those classifiers who ordered groups in nature according to a single, “essential” character to create “artificial systems,” Locke rejected the universal notion of species in his *Essay concerning Human Understanding* (1689). For him, “species” comprises a useful category in abstract philosophical discussion, but does not exist in nature. The problem, according to Locke, with an abstract, taxonomic conception of species is the incommensurability between the Particular/Individual (Tom, Dick, and Harry) and the Universal (Man). His objections pose a fundamental problem to the attainment of knowledge, for if we can only directly know individuals and our experiences cannot be generalized by converting particulars into universals, then science ceases to work. Locke’s ideas even inspired John Ray to reconceive his notion of species and, in turn, influenced Thomas Pennant and Georges-Louis Leclerc, comte de Buffon, among other important naturalists of the eighteenth and early nineteenth centuries. Buffon followed Ray in rethinking species, incorporating as many particulars as possible before moving to a universal and establishing something more akin to a network than a system for configuring relations between species.\(^{70}\) I further explore the ideas of Ray, Pennant, and Buffon, and their impact on women writers in subsequent chapters. However, most interesting to the present argument is that Barbauld and many other women authors also closely attend to various particulars and individualizations prior to panning out to universals. To state that male Romantics such


\(^{70}\) Ray, and later Buffon, gave up the search for an “essential characteristic” and instead based the criterion for a species on the ability to “perpetuate and conserve similarity of the species by means of copulation” (Roger 313-4).
as Wordsworth often move more quickly to abstractions while women poets tend to spend more time lingering on particularities repeats Stuart Curran’s classic argument.71 Yet, the theory becomes refreshed and refined here in our ability to connect literary abstractions with those of science, and to note that in Barbauld’s literary criticism, she perceived poetic abstractions as “scientific” in a way that counters her own efforts in natural history poetry.

Valuable insights into Barbauld’s distinction between particularities and abstractions in poetry, as well as their relation to science, may be gathered from her “Prefatory Essay” to The Poetical Works of Mr. William Collins (1797). Barbauld shows off her knowledge of natural history throughout this essay of literary criticism, for instance, distinguishing flowers that only exist through cultivation in Britain but “grow wild in many parts of Persia,” and correcting Collins’s ornithological terminology (xiv, xxv). Through her usage of “species” and “classes” she additionally displays overlaps in vocabularies of scientific taxonomy and literary criticism (a subject of further investigation into how these overlaps contribute to the formation of a literary canon in chapter three) when she argues that “The different species of Poetry may be reduced under two comprehensive classes.”72 In her first class of poetry, Barbauld includes didactic, dramatic, epic, moral, and, importantly, descriptive poetry, that is, “descriptions of natural objects, where the mind recognizes with pleasure the forms and colouring it admires in the various scenes and productions of the visible world” (iii-iv). In contrast, she determines that the second class “consists of what may be called pure Poetry, or Poetry in the abstract,” a category within which she includes “All that is properly Lyric

72 Anna Barbauld, “Prefatory Essay,” The Poetical Works of Mr. William Collins (London, 1797) iii.
Poetry” (iv, v). It is in this second class that Barbauld places the poetry of Collins, who himself occupies “a respectable rank amongst our minor Poets” and receives her qualified praise (vi). Although Barbauld designates “Poetry in the abstract” as “pure Poetry,” she proceeds to undermine this term of potential predilection. Unlike the descriptive moral and nature-poetry of the first class, the so-called pure poetry is “obscure,” of a “shadowy nature,” “conversant with an imaginary world, peopled with beings of its own creation” (iv, vii); because these poems are so thoroughly based in the poet’s subjective sentiments, they are often inaccessible for the reader who does not share “similar contemplations,” and Barbauld thus declares that this kind of poetry will never be popular (iv, vi). She views lyric poetry as exclusionary because even “the most beautiful Ode will only please those who by being long conversant with the best models of Poetry in a polished age, have acquired a scientific and perhaps, in some degree, a factitious taste” (vi). It is important to note Barbauld’s placement of pleasure, and what she considers to be “scientific” in this critique. Whereas descriptive poetry enlivens the mind with pleasurable recognition of the natural world, sentiments with which all readers may empathize, poetry of the abstract can only please those who approach poetry scientifically and artificially. For Barbauld, lyric poetry enters too deeply into the abstract character of science, and when abstractions get in the way of pleasure, poetry is compromised.

In large part, what Barbauld finds “factitious” or artificial in abstract poetry is its self-contained metaphysicality, “having to do chiefly with ideas generated within the mind” of the poet, and thus, in that sense, divorced from the natural world (iv). To exemplify this, we may look at Barbauld’s criticism of Collins’s version of the Creation story in his poem “On the Poetical Character.” She deems this poem “neither luminous
nor decent” in its suggestion of a sexual relationship between “The Supreme Being” and Fancy, and in the idea that this was the means by which “all the visible creation, started into being” (xxiii-xxiv). Just as her father objected to Linnaeus’s infidelities to the Mosaic account of Creation, Barbauld admits only puzzlement at Collins’s “by no means reverential fiction concerning the Divine Being” and attempts to clarify and correct his poetic plot by bringing it closer to her own thoughts:

> Probably the obscure idea that floated in the mind of the Author was this, that true Poetry being a representation of Nature, must have its archetype in those ideas of the supreme mind, which originally gave birth to Nature; and therefore, that no one should attempt it without being conversant with the fair and beautiful, the true and perfect, both in moral ideas…and the productions of the material world (xxiv).

Barbauld’s delineation here of “true Poetry” encompasses her first class of poetry and appears more distant from what she calls “pure Poetry, or Poetry in the abstract” especially in that true poetry originates in the mind of God, while pure poetry originates more exclusively in the mind of the poet. Thus, regardless of Collins’s intentions for this poem, for Barbauld, his insular vision corrupts the “true and perfect” productions of the supreme mind.73

When it comes to poetry, Barbauld’s caution to Aikin about the extent to which science should enter into verse, and the need for scientific information to be familiar to

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73Only slightly less disturbing to Barbauld than Collins’s irreverent depiction of the Divine is his inaccurate portrayal of the great versifier of the Divine’s natural creation, James Thomson. Critiquing Collins’s “Ode on the Death of Thomson,” Barbauld again inveighs against his lack of “propriety,” finding “nothing characteristic of the Author he wished to commemorate,” and, further, a failure of natural description due to a complete lack of “local acquaintance with the scenery” (xliii). In Barbauld’s delineation of his works, Collins’s propensity toward abstraction explains his shortcomings in descriptions of nature, its Creator, and the quintessential poet of descriptive nature-poetry.
readers, seeks a balance between the particular and the abstract, between accurate observation and imaginative pleasure to create a paradoxically familiar novelty of information in portrayals of nature. In this balance, Barbauld avoids the trap Wollstonecraft feared had been set in women’s supposed skill in perceiving particularities, sometimes touted as suiting them for accurate observations in the natural sciences, as expressed, for instance, by writers such as Eliza Haywood and Charlotte Lennox (see the Introduction to my study). Wollstonecraft worried that such assertions may corroborate women’s inability to conceive in abstract terms, and writes that “the power of generalizing ideas, of drawing comprehensive conclusions from individual observations…has not only been denied to women; but writers have insisted that it is inconsistent, with a few exceptions, with their sexual character.”

In Barbauld’s poetry, the question is not whether she deals in abstractions but what place and degree of emphasis such generalizations assume, and this can be exemplified in her affecting poem, “The Caterpillar.” Here, her “sharpened eye,” having been employed in “persecut[ion]” and “slaughter” of caterpillar “tribes and embryo nations,” softens to a feeling curiosity when examining the particular physical qualities of a single individual:

No, helpless thing, I cannot harm thee now;
Depart in peace, thy little life is safe,
For I have scanned thy form with curious eye,
Noted the silver line that streaks thy back,

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The azure and the orange that divide
Thy velvet sides; thee, houseless wanderer,
My garment has enfolded, and my arm
Felt the light pressure of thy hairy feet;
Thou hast curled round my finger; from its tip,
Precipitous descent! with stretched out neck,
Bending thy head in airy vacancy,
This way and that, inquiring, thou hast seemed
To ask protection; now, I cannot kill thee….
A single wretch, escaped the general doom,
Making me feel and clearly recognise
Thine individual existence, life,
And fellowship of sense with all that breathes (ll. 1-13, 24-27).

Through the personal contact of experiencing the “light pressure of [its] hairy feet,”
examining the colorations and markings of its “velvet sides” and back, and observing its
ability to seem, almost humanly, “inquiring” and pleading for protection, the caterpillar
becomes real – a living creature outside the self, worthy of care and recognition for its
own sake. It attains an identity separate from the nameless masses and from the poet’s
consciousness, even as it is a means to the poet’s expanded knowledge of herself and to
“fellowship” with the world around her. Barbauld’s reader comes away with a vivid,
“very full,” “lively picture of [the] object, as if you saw it,” and a pleasing sense of
familiarity that imparts the feeling of having been “touched” by this “single wretch.” As
in Barbauld’s depictions of birds and insects in her poem, “To Mrs. Priestley…,” her
vivid description of the caterpillar indicates that she has a particular species in mind, but she again excludes such specific information, balancing between the particular and the general. The poem’s final lines continue to broaden to a larger moral framework, but Barbauld’s minute description of this caterpillar functions as the poem’s main focus, expressive of approaching each “individual existence, life,” outside the self with compassion, which then results in the realization of this experience’s universal application. This poem displays the union of moral sentiment and attentiveness to nature that comprises much of Barbauld’s poetic oeuvre and that she used to justify women’s attainment of scientific knowledge in her letters “On Female Studies.”

“Where Science Smiles, the Muses Join the Train”: A Qualified Approach

Despite her acumen in natural history, Barbauld viewed the combination of science and poetry with caution, refusing to identify the poet too closely with the naturalist. Her descriptive nature-poetry subtly recalibrates sexist attitudes regarding women’s relations to nature and pleasure, and influenced subsequent women writers who looked upon her precedent as one to be followed, repudiated, and modified for the next four decades in what Judith Pascoe has recognized as a “literary movement…of British women’s writing merging poetry and science.” But of equal interest is the impact of Barbauld’s writings on male poets of the period.

While Lamb strictly confines Barbauld’s scientific engagements to a rational mode that stifles imagination, Wordsworth arguably presents a more complex case of comparison. In the “Preface” to the second edition of *Lyrical Ballads* (1800),

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Wordsworth famously defines the poet as “a man speaking to men,” and writes that poetry’s only “necessity” is “producing immediate pleasure.” In this way, he seeks to masculinize both poetry and pleasure, especially an imaginative form of pleasure that cannot be separated from expressions of knowledge and sympathy. As Geoffrey Hartman notes of Wordsworth, “[h]e rarely counts the streaks of the tulip, but he constantly details the state of his mind.” Like the observant poet-naturalist Aikin advocated as embodied by Barbauld, Wordsworth states, “I have at all times endeavored to look steadily at my subject,” but he clarifies that his “subject” is “the manner in which our feelings and ideas are associated in a state of excitement,” thereby emphasizing the predominance of internalization. He follows Barbauld in exploring the division between the Poet and the “Man of Science” (Wordsworth’s phrase), and, like Barbauld, indicates concern for unfamiliar scientific subjects in poetry. However, while Barbauld felt that some natural-historical subjects are familiar enough for verse, affirming in her poem, “The Invitation,” that “Where science smiles, the Muses join the train,” this is an admission that Wordsworth denies (l. 109). In the “Preface,” he employs a series of poignant “if” clauses to endlessly defer the mixing of poetry with science, stating, “If the labours of Men of Science [‘the Chemist, the Botanist, or Mineralogist’] should ever create any material resolution….if the time should ever come when what is now called science, thus familiarized to men, shall be ready to put on, as it were, a form of flesh and blood, the Poet will lend his divine spirit to aid the transfiguration.” However, as these “if” clauses make clear, for Wordsworth, that time has not come, and science is not ready to appear in poetry; rather, for Wordsworth, science is yet too solitary, separate, and abstruse to become “flesh and blood.” Scholars have attributed Wordsworth’s preclusion

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of science from poetry to his jealousy of Sir Humphry Davy, or to an attack on the “gaudiness” of language in Erasmus Darwin’s poems. While I find each of these arguments convincing, his statements also work to de-legitimize versifications of natural history, and perhaps women’s versifications of this kind in particular, in order to reclaim poetry as a more strictly imaginative, masculine vocation. In the “Preface,” Wordsworth’s “if” contingencies condemn and negate versifications of science as prematurely embodying improper – because unfamiliar – subjects of poetry. He also gestures toward science’s movement away from its sociable manifestation, depicting it instead as esoteric knowledge, “cherishe[d] and love[d]” by the “Man of science” in solitude. In this characterization, through science’s professionalization, it no longer invites the participation of amateur naturalists, so important to Aikin’s call to verse, and to women’s inclusion in the study and discovery of scientific phenomena. Interestingly, Barbauld anticipates Wordsworth in outlining science’s tendency toward abstraction, its potential for insularity and exclusion, and the need for science to be familiar within the public imagination before entering into verse. Barbauld, like Wordsworth, disapproved of the “uncouth,” whether in names or lack of familiarity, as a distraction from poetic pleasure. Yet, for Barbauld, the primacy of pleasure in poetry qualifies, but does not preclude, science’s role in verse. In her cautionary approach, Barbauld forms an interesting beginning to this era’s movement of women merging literature and natural history, one which is very different from that of, say, Charlotte Smith, who frequently includes scientific species names in her verse, and blurs Barbauld’s line between poetry’s

pleasurable purpose and prose’s ability to teach. Such differences help to chart the spectrum of women’s literary involvement in natural history, and their relative contrasts with male Romantics such as Wordsworth.

Because Barbauld and Wordsworth each arguably head respective, nearly-concurrent literary movements that depend largely on delineating the relation between nature and humanity, their various similarities and divergences offer important insights into the ultimate exclusion of poems of natural history, written by Barbauld and other women writers, from the canonization granted to the style of nature-poetry now synonymous with “high” Romanticism. This exclusion of women’s writing marks a topic to which my argument will return throughout this study. Wordsworth’s gestures toward the masculinization and professionalization of both poetry and science, and toward the incompatibility of these two disciplines, sets the stage for a more widespread transition away from women’s melding of literature and natural history that will be further explored in chapters four and five, and a primary subject of my epilogue. More immediately, Chapter Two makes an excursion away from Britain and to the very locale of natural history that Barbauld exemplified as possessing species whose nomenclature was unfamiliar and therefore inappropriate for verse. In this next chapter, the West Indies elucidate how the naturalists (Ray, Pennant, and Buffon) important to understanding Barbauld’s scientific engagements in Chapter One further influenced late eighteenth-century British conceptions of gender, nationalism, and imperialism as well as concepts of hybridity by examining the work of the poet and travel writer, Maria Riddell.
Chapter 2

Hybrid Britons: West Indian Colonial Identity and Maria Riddell’s Natural History

Death, disease, and degeneration permeate late eighteenth-century portrayals of the British West Indies and, as several scholars have recently suggested, these threats incited anxiety concerning hybridizing effects on relocated British subjects. Arguably more alarming than the risk of physical alterations wrought by disease was that of degeneration in British national character, resulting in indolence, excessive passion, and the barbarous corruptions related to a slave society. In natural history and medical tracts, such national degenerations found comparison with natural degenerations of zoological and botanical species. Theorizations of biological mutability were largely influenced by the work of Georges-Louis Leclerc, comte de Buffon, who famously associated the entire western hemisphere with biogeographical degeneration, an association that held significant implications for European colonists of these territories. Still, British writers sympathetic to West Indian interests often sought to reformulate the Caribbean capacity for alteration. Writers such as Edward Long, Janet Schaw, Bryan Edwards, and Maria Riddell gesture toward conceiving of the West Indies as a space in which nationality acquires new meaning, where transplants of Scottish, Welsh, Irish, and English origin become agents of empire and “Britons” in a now-shared experience of common values and a broader sense of national (rather than regional) allegiances: a developmental shift of national identity that seems at home in these islands, where biological forms evoke the hybridity synonymous with island ecologies.

79 Portions of this chapter previously have been published in my article by the same title in European Romantic Review 20.2 (April 2009): 207-17.
80 See especially Bewell’s Colonial Disease and “Jefferson’s Thermometer,” Brown, Grove, Parrish, Wheeler, and Wilson.
In her *Voyages to the Madeira, and Leeward Caribbean Isles: with Sketches of the Natural History of these Islands* (1792), Maria Riddell employs her knowledge of science to redirect contemporary conversations about hybridity. Within a natural-historical framework, Riddell imposes a British nationalist, unifying agenda on the West Indian colonies and indicates the potential of these islands to foster the inherently hybrid “British” national identity. Importantly, the interaction of nature and nation informs her scientific attitude toward change. Subtly assuaging her British readers’ fears of West Indian hybridity, she explores the improvements possible in British Caribbean islands through national values such as Protestant industry while projecting the degenerations imputed to West Indians instead onto foreign (especially Catholic) nations. Riddell interrogates even as she enforces the concepts of degeneration and improvement, questioning the ideologies intrinsic to these formulations and their degrees of relevancy to British colonies in the Atlantic. Yet Riddell’s *Voyages* includes noticeable elisions, particularly in regard to slavery, that complicate the presentation of these islands as conducive to the idealization of a unified Britain—undercutting the notion that the colonial periphery (and its nature) may serve as a model for the metropole.

**Riddell’s Personal Hybridities**

The poet and naturalist Maria Riddell (nee Woodley; 1772-1808) embodied national hybridity. Although she was born and educated in England, Riddell’s family had long-established connections to the West Indies, and particularly to the Leeward Islands. Her father inherited a plantation on St. Kitts and twice served as British Governor of the Leeward Islands; and her mother may have been born on St. Kitts, as

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81 For Riddell’s biographical information, see Macnaghten and Gladstone.
was her cousin, who likewise was twice Governor of these islands and owned a plantation on Antigua. In 1790, at nearly eighteen, Riddell was married on St. Kitts to the Scottish lieutenant and Antiguan plantation owner, Walter Riddell; and, upon moving to Scotland shortly thereafter, the couple became neighbors with the poet Robert Burns. In fact, in literary scholarship, Riddell is currently best known for her close friendship with, and subsequent memoir about, Scotland’s national bard, Robert Burns. In his lifetime, Burns penned numerous poems for and about Riddell and, as his recent biographer states, “he was more than a little in love with her.” Burns praised Riddell’s poetic talent and revered her as a friend and confidante; but more importantly for my interests, Burns, who nearly sailed for the Caribbean in 1786 before hearing of the success of his first volume of poetry, provided the means by which Riddell’s *Voyages to the Madeira, and Leeward Caribbean Isles: with Sketches of the Natural History of these Islands* came to be published. Burns introduced Riddell to the publisher of his first volume of poems, William Smellie, who was also a naturalist translating the works of Buffon and authoring *The Philosophy of Natural History* (1790). Immediately impressed with both the author and her work, Smellie wrote to Riddell,

> if I had not previously had the pleasure of your conversation, the devil himself could not have frightened me into the belief that a female human creature could…have produced a performance so much out of the line of your ladies works….science, minute observation, accurate description, and excellent composition are qualities seldom to be met with in the female world.  

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Although this line of praise justifies Hannah More’s complaint that a woman writer’s “highest exertions will probably be received with the qualified approbation, *that it is really extraordinary for a woman*,” Smellie’s enthusiasm for Riddell’s manuscript led him to become her friend and scientific correspondent, as well as publisher.\(^83\) Riddell’s natural history provides empirical reportage on geographical and geological dis/advantages, architectural developments, and minute attention to classifications, descriptions, and uses of indigenous species of the plant and animal kingdoms on the British Leeward Islands.

In *Voyages*, Riddell adopts the objective and disinterested persona of the naturalist, a mode of writing that conforms to the “new seriousness” of travel literature after 1789, when, as Katherine Turner argues, “the travel writer’s nationally representative responsibilities come to the fore, and personal oddities are displaced by the requirements of intellectual and ethical reliability” (181). Women travel writers were in a bind, expected to provide their patriotically useful observations and simultaneously maintain an ostensible distance from the masculine sphere of politics. This generic shift is evident in a comparison of *Voyages* with the work of Janet Schaw, a Scottish travel writer who visited the Leeward Islands fourteen years prior to Riddell.\(^84\) Schaw’s earlier account addresses many of the same issues as Riddell’s—especially British nationalism, anti-Catholicism, Protestant industry, and improvements within West Indian nature—but the conventions of her time allow Schaw to be more straightforward in her (enthusiastically supportive) view of the West Indies. Riddell’s opinions are much more

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\(^84\) Turner remarks that although Schaw’s travel narrative was not published within her lifetime, her manuscripts suggest that the work was intended for a wide readership and that Schaw may have been “considering publication” (134).
tacitly couched within “science, minute observations, [and] accurate description” that require close inspection of her authorial choices, the subtleties of which reveal an expanded, complex commentary on nationalism and respond to the work’s historical context (Kerr 2:363).

Riddell wrote *Voyages* at a critical juncture in the history of British interests in the West Indies. Arriving on St. Kitts in 1788 and publishing her work in 1792, she recorded her observations during the aftermath of Caribbean involvement in the American Revolution and in the midst of the tensions and exuberance emanating from the French Revolution prior to the Terror. During the American War, the sense of national identity predominating in the British West Indies differed from that which spurred revolution in the North American colonies. British West Indians persistently reiterated their allegiance to Britain and identified with British culture and society rather than establishing a separate Creole national identity—the majority of West Indians sent their children to Britain for their education, many hoped to return to Britain after making their fortune, and the islands had relatively little communication between them or feelings of affiliation—their allegiance was directed toward Britain rather than toward each other in a sense that might promote a separate national identity within the archipelagos. There was a feeling of mutual dependence between the West Indian colonies and the mother country. Indeed, the West Indian colonies were considered so indispensable during the American Revolution that “George III thought it better to risk an invasion of England than to lose the sugar islands, without which it was ‘impossible to raise money to
continue the war’.” However, after the American War, the British government strengthened the Navigation Acts, restricting the islands’ trade for vital provisions with the newly independent United States. Abolitionist propaganda campaigns and lobbying from the mercantilist system also threatened the economic viability of the islands, causing unrest among West Indian planters and British loyalty to wane. A young Horatio Nelson, sent to the Leeward Islands to enforce the Navigation Acts, stated that the now disgruntled West Indians seemed to him “as great rebels as ever they were in America” (qtd in O’Shaughnessy 247). Aware that in this strained political atmosphere British perceptions of the West Indies were mixed at best, Riddell assumes, by means of the naturalist’s persona, an appearance of disinterested assessment even as her assertions of nationalism are conveyed primarily through the ideology of the natural history system she employs. Crucially, in her text, Riddell organizes West Indian nature in accordance with the zoological classifications of the British nationalist naturalist, Thomas Pennant.

**Pennant’s “British” Ideology**

While Riddell wields Linnaean “generic and scientific names” and employs his *Systema Naturae* in her classifications of plants and insects, she chooses Pennant’s system for her zoological taxonomy. To a degree, we may take Riddell at her word in choosing Pennant’s zoology over that of Linnaeus because of the “simplicity” of Pennant’s arrangement and “as being more elegant and perspicuous.” Pennant himself describes his system as “clear and perspicuous,” in contrast to his depiction of the unreliable and ever-mutable classes of Linnaeus, which change from one edition to

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85 O’Shaughnessy 4. The West Indian colonies were considered so indispensable to the mother country that, during the war with America, “George III thought it better to risk an invasion of England than to lose the sugar islands, without which it was ‘impossible to raise money to continue the war’” (208).
another, so that any “Naturalist ran too great a hazard in imitating his present guise.”

Pennant rejects several of Linnaeus’s classes of quadrupeds, refusing to endorse him, for instance, in “rank[ing] mankind with *Apes, Monkies, Maucaucos*, and *Bats.*” Pennant additionally omits anatomy from his classifications. At a time when even the anatomy of plants could be deemed inappropriate for women’s contemplation, these considerations made Pennant’s zoological system more appropriate for women’s use and doubtless increased its attractiveness for Riddell, who, in her Preface, disclaims the “accuracy” and “scale” of her natural-historical text in accordance with conventions of feminine modesty to help assuage her foray into the masculine territories of politics and science. One satirist, recoiling from her personal outspokenness and willingness to venture into masculine spheres, termed Riddell “a profligate woman” and situated her within her own “museum” as a “pickled frog (for such she looked, amid her own collection of natural curiosities.”

Although “pickled” hardly seems an applicable adjective for Riddell, who was considered beautiful and died at the age of thirty-six, the depiction reveals the hostilities often faced by women perceived as crossing gender divides.

Pennant’s work probably also appealed to Riddell through its encouragement, in the Preface to *British Zoology*, of writers of descriptive poetry in their knowledge and use of natural history, and in the merging of literature and science. He importantly influenced John Aikin’s *Essay on the Application of Natural History to Poetry* (1776), which is dedicated to Pennant and urges poets to adapt Pennant’s scientific findings to verse as well as to make their own natural observations and discoveries. As is further discussed in chapters one and four, Aikin’s essay arguably helped to make natural history more accessible to women writers by appealing to amateur naturalists and by
exemplifying the verses of his sister, Anna Barbauld. Many female poets, such as
Charlotte Smith, additionally incorporated natural history into their poetry through
scientific footnotes in a form often associated with Erasmus Darwin’s *Botanic Garden*
(1789). Like many contemporary women writers, Riddell held Darwin in high regard as
both a naturalist and poet; she suggested that he write the poetic inscription for a stone
monument dedicated to Robert Burns, and Darwin contributed a poem to the volume of
*Metrical Miscellany* edited by Riddell in 1802. Interestingly, in *Voyages*, Riddell
intersperses her scientific narrative with poetic passages from Homer, Virgil, Waller, and
Thomson, whose verses imaginatively support her own assertions and act almost as
*poetical* footnotes. She thus adopts a formal hybridity that nearly inverts that found in
the poems and scientific footnotes of Smith and Darwin. Therefore, in the very form of
her text, Riddell arguably underscores the importance of hybridity to its content, an
importance further pressed by her adoption of Pennant’s system as a means to espousing
his ideology of British national hybridity.

In his popular travel literature, Pennant sought to familiarize readers with the
separate regions of their “British” nation and with their unifying, conglomerate culture-
in-formation by detailing Scotland’s landscape and culture, as well as those of Wales and
England, and he notes in his autobiography his disappointment in failing to publish his
tour of Ireland. Pennant himself was Welsh, and perhaps this shaped his presentation of
Britain as a cohesive nation even as he appreciated its individual regions. He was not
blind to the divisions that existed, but saw his work as an effort to overcome those
divisions. Pennant describes his motivations to write *Tour in Scotland*, stating, “I labored
earnestly to conciliate the affections of the two nations [England and Scotland], so
wickedly and studiously set at variance by evil-designing people” (*Literary Life* 13). Matching his words with his deeds, in an appendix to his autobiography, dated 1792 and titled, “My Last and Best Work,” Pennant recounts that “the dangerous designs of the French” induced him to “form an association for the defence of our religion, constitution, and property, after the example of some of the English counties, cities, and towns.”

87 Pennant’s “zeal” thus brings Wales into alignment with the British national cause.

Through his writings, Pennant constructs the image of a unified Britain so that, while recognizing the diversity of British inhabitants and natural resources, he presents a feeling of commonality through differentiation from (and superiority to) continental Europe.

Embedding nationalism in his scientific classifications, Pennant vies for a quintessentially British system of natural history to which all succeeding systems must trace their lineage. To do so, he declares his indebtedness to “our illustrious countryman,” John Ray, the late seventeenth-century virtuoso and credits him as “the founder of systematic Zoology” (*British Zoology* xiii). 88 Targeting the titans of natural history, Pennant sets up a rivalry between himself, Linnaeus, and Buffon: ultimately a national rivalry between Britain, Sweden, and France, or rather, between Britain and the rest of Europe. The national contest that Pennant stages is as much about the arrangement of particular orders of animals as about economic supremacy. He assures readers that British natural resources “give us the superiority over these so much boasted productions of Sweden,” and conjures up Britain’s “natural” enemy to exhort, “if we reflect but a little on the unwearied diligence of our rivals the French, we should attend to

87 Ibid. 135.
88 Pennant also discusses his adoption of Ray’s system in the preface of *History of Quadrupeds*, and it is in this work that Pennant more specifically sets up the rivalry between himself, Linnaeus, and Buffon.
every sister science that may any ways preserve our superiority in manufactures and commerce” (iv, xi). It is ultimately these nationalistic “hints towards enlarging and improving our manufactures and agriculture” that Pennant points to as justification for offering his zoologies to the public (xi).

In addition to a British system of zoology, Pennant claims a British foundation for natural theology, emphasizing the national merit of Protestant industry (vi). His anti-Catholicism and Francophobia present a model of national unity forged through opposition to the foreign “other” that resonates with Linda Colley’s famous thesis. The prominent nationalism that frames Pennant’s system allows Riddell to impose these standards of Britishness onto the Leeward Islands in an attempt “to conciliate the affections of” Britain and its West Indian colonies without a direct statement of political involvement. Adopting Pennant’s national ideology in addition to his classification system, Riddell similarly creates an opposition to the Catholic “other.” The first stop in her Voyages, the Portuguese island of Madeira, located off the North African coast in the North Atlantic, functions as Riddell’s most obvious foil for the British colonies; and it is on the Madeirans that she projects the degenerative characteristics often imputed to West Indians.

89 “[Great Britain] was an invention forged above all by war. Time and time again, war with France brought Britons whether they hailed from Wales or Scotland or England, into confrontation with an obviously hostile Other and encouraged them to define themselves as Protestants struggling for survival against the world’s foremost Catholic power” (Colley 5). Matching his words with his deeds, in an appendix to his autobiography, dated 1792 and titled, “My Last and Best Work,” Pennant recounts that “the dangerous designs of the French” induced him to “form an association for the defence of our religion, constitution, and property, after the example of some of the English counties, cities, and towns”; Pennant’s “zeal” thus brings Wales into alignment with the British national cause and forms another example of unity forged in opposition to the French “other” (Literary Life, 135).

90 Edwards attempts a more overt effort at conciliation between Britain and its West Indian colonies in his text (2:477).

91 The Catholic Irish may seem to be an exception to British Protestant unification forged through opposition to the Catholic “other” but, in the West Indies, “with the scarcity of Roman Catholic priests, many of the Irish gradually conformed to the Church of England, or (in the Leeward Islands) moved to French territory and became identified with the French” (Dayfoot 86).
Madeira

In Madeira, Riddell associates Catholicism with corruption and a lack of industry. She describes the Madeirans, and especially the lower classes, as not only excessive in their passions, but also as “indolent, dirty, and much addicted to theft” (15): a national character reflected in the disrepair and disorder of the island’s main town and in the inhabitants’ neglect of nature. Admiring the lushness of the island’s vegetation, Riddell states that if Madeira were “properly cultivated” it “might justly be termed the garden of the world.” She remarks that “the serenity of the climate, the fertility of the soil, everything conspire to render it an absolute terrestrial paradise; and it only requires the nurturing hand of art to give the finishing touches to a scene on which nature has so profusely poured her choicest treasures” (8, italics mine). The Portuguese’s failure to cultivate and instill order in nature provokes a national indictment of “indolen[ce]” that marks their degeneration.92

By recounting that “this desirable island” was first “discovered by an Englishman,” in the fourteenth century and, in the fifteenth, was “conquered by the Portuguese, “who set fire to the forests, which…gave the soil that degree of fertility which it boasts of at present” (9), Riddell indicates that the Portuguese have degenerated from their industrious past to become now neglectful of the island’s natural potential. In the imperial rhetoric of the eighteenth century, this present neglect constitutes a forfeiture of land rights that would justify the British in taking what previously had been theirs.93

92 For Riddell, the exception to Madeira’s chaotic nature is the pleasing “order” imposed by vineyards owned by the island’s British factory of wine merchants. According to Gregory, the British community of Madeira composed a population of only three hundred people in the late eighteenth and early nineteenth centuries, as opposed to the over sixty thousand Portuguese residents; however, this small British population controlled the vast majority of the island’s revenue (18).
Although I do not wish to suggest that Riddell called for military action of any kind, one could say that Madeira was already economically, if not politically, conquered by Britain, and Riddell’s observations lent ideological backing to this economic dominance. The British community of Madeira composed a population of only three hundred people, as opposed to the over sixty thousand Portuguese residents. However, this small British population controlled the vast majority of the island’s revenue—chiefly owning vineyards and acting as wine merchants to capitalize on the popular wine that took its name from the island. For Riddell, the island’s British vineyards impose a pleasing and industrious order on the otherwise chaotic landscape that moves her to quote Homer’s *Odyssey*: “here order’d vines in equal ranks appear, / With all th’united labours of the year” (10). Her focus on British industry counters the indolence she notes in the island’s Portuguese population and in its religious representatives, who, in Riddell’s scheme, by failing to improve nature, become part of it.

Riddell’s anti-Catholic critique acquires a satirical dimension through terminology and methodology that overlaps between her descriptions of zoological and vegetable “orders” and those of the Portuguese monks and nuns. She draws attention to the “strict order” of despondent nuns at the Convent of Santa-Clara and a monastery “of Franciscans, which is reckoned of all monastic orders the most numerous” (5, 7). Riddell humorously describes the physical and behavioral characteristics of the monks of this “order” as minutely as she does those of the biological species in her natural history. Given this witty effect, Riddell may have read the anti-monastic satire, *John Physiophilus’s Specimen of the Natural History of the Various Orders of Monks, After the*

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Manner of the Linnaean System, pseudonymously authored by Edler von Ignaz Born, and printed in London for Joseph Johnson in 1783. In Born's ludicrous treatment of what he designates as “the study of Monkhood” or “Monachology,” he declares his discovery of “a genus entirely new…I mean the monk: a genus most unlike the human, yet belying the human form.” Born describes the “genus” of “The Monk” as “an animal greedy, stinking, filthy, thirsty, slothful, preferring hunger to labour. At the rising and setting of the sun, but especially at night, the monks flock together, and when one begins, they all set up a howling: They all run together at the sound of a bell.” Although the more serious nature of Riddell’s text prevents her ridicule from going so far as that of her pseudonymous predecessor, her description of the Franciscan order compares closely with that of Born who remarks on their “indolence” and hypocrisy. After Riddell delineates particularities of the Franciscans’ physical characteristics—“the Friars go barefooted; their habit is a brown, coarse stuff, with a cowl; and they have a cord tied round their waist,” and so on—she relates that “all sorts of property are forbidden by this rule…they are also forbidden to receive money”; but, like Born, she records the monks’ hollow virtue, stating, “I had a very entertaining proof of their ingenious equivocations in that respect; for, on offering one of them a piece of money, he held up his hands as if fearing they should be polluted by the touch, at the same time turning his head, pointed to a little pocket, in which I accordingly slipped the dollar” (7). While the monk’s “ingenious equivocations” receive only wry derision from Riddell, such comparatively

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95 Edler von Ignaz Born, John Physiophilus’s Specimen of the Natural History of the Various Orders of Monks, After the Manner of the Linnaean System, Translated from the Latin, Printed at Augsburgh (London, 1783) 5.
96 Ibid. 14-15.
minor failings in Catholicism are presented as symptomatic of more sinister religious and cultural corruptions.

As Vincent Brown argues in his recent study, rituals for the dead importantly reveal cultural values; in Riddell’s observations of a Catholic funeral on Madeira, ritualized revelations underline social deprivations that otherwise would be less overt. At the funeral, Riddell relates that the bones of the corpse, “as soon as it was brought within the church…were all broken one after another, the body carelessly thrown into the ground without a coffin, and the hole filled up with large stones” (15). This grotesque Catholic burial “did not a little disgust and surprise” Riddell and would have reminded her readers that Protestants were permitted no church on Madeira, nor were they even allowed to be buried until 1767. Prior to that time, Protestant corpses were unceremoniously dug up and thrown into the sea (Gregory 78). In light of such deprivations, Riddell later wrote, “I…think unfavourably of man only as ill-organized civil societies…and false religions, have degenerated him.” Both the “indolen[ce]” and unimproved land reflect the religious and cultural corruption of the Portuguese on Madeira; combined, they create a standard of foreign degeneration against which the British West Indies may be measured.

National/Natural Hybridity

Upon reaching the Leeward Islands and disembarking from her aptly named ship, the Britannia, Riddell records her observations on St. Kitts, Nevis, Barbuda, and Antigua. In their “vast rocks, high precipices,” “deep vales, and hanging woods,” “rich pastures,

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97 Kerr 2:391. While this quote is taken from a letter Riddell wrote a few years after the publication of Voyages and pertains to events transpiring in Britain itself, her reaction to the Catholic funeral and to the Catholic religion more generally on Madeira suggest the quote’s applicability here.
grazing cattle, and little gardens dispersed on the slopes of the hill,” the islands’ natural scenes have all the diversity—and familiarity—of Britain itself (24). Riddell attends to the islands’ incorporation of different regions of Britain through both the Britannic naming of places and the representations of regional populations within the island communities. For instance, using local dialect, she refers to two disparate terrains of Barbuda as “the High-lands” and “the lowlands,” so that, at times, one almost forgets that she is not speaking of Scotland (36-7). Scotland is again insinuated into the West Indies when Riddell describes the expedition of “three hardy Scotsmen” who planted a flag near a mountain’s summit on St. Kitts in 1787, a conventional symbol of claiming land in the name of one’s nation (22). In these observations Riddell subtly echoes the tendency of British writers to find (or create) elements of Britain in its colonies. Janet Schaw, for instance, wrote of St. Kitts “that its principal beauty to me is the resemblance it has to Scotland” (74). In Riddell’s narrative, similar regional representations compound with further geographical denominations, such as “Irishtown” on St. Kitts, and “English Harbour” on Antigua, which “is not open to any craft but what belongs to the King,” to give the islands a strangely British feel despite their exoticism (51). She also conjures up images of national unity forged through opposition to the foreign “other” when, for example, she invokes “the celebrated fortress of Brimstone-Hill” on St. Kitts, where colonists put up the bravest resistance of the American War in the Caribbean theater by holding out against a French naval siege for five long weeks in 1782 (28). Riddell thus revives memories of colonists’ recent loyalty and unification against French forces in the British national cause. As in Pennant’s works, Riddell’s subtle incorporation of diverse regions of Britain retains an appreciation of difference while creating a sense of hybrid
national identity; and precedence for this national hybridity can be found within the natural hybridity of the Leeward island ecologies.

Riddell exhibits the naturalist’s fascination with organisms that appear to bridge gaps between species, orders, or even kingdoms, such as the “sea bat or laphius vuspertilio, which, though an inhabitant of the ocean, carries in its form the striking resemblance of an ill-formed quadruped,” as well as “three species of the ascidia, or animal flower;” and the opossum, which in Riddell’s description simultaneously incorporates the anatomy of a weasel, hog, and “domestic cat” (55, 68, 78). This kind of hybridity, often denoted in species’ common names, was of great interest in the eighteenth and early nineteenth centuries, appealing equally to poets who could play on built-in analogies and surprising liminalities offered to the imagination. Her study of the islands’ natural history was astute and she understood that present species did not necessarily indicate the long-term habitation of biological forms any more than it did of the current colonial occupants of these islands that had successively belonged to Spain, France, and Britain. As the Leeward Islands were never attached to a mainland, species existing on these islands resulted from over-water dispersal, a fact acknowledged by Riddell through her delineations of feral species, explaining that the Spanish, in the fifteenth century, stocked the islands with cattle, goats, and hogs. Her close observations additionally enable Riddell to spot species differentiations between the islands, similar to those which prompted Darwin and Wallace to recognize that islands act as “evolutionary laboratories.” Riddell primarily confines herself to the natural history of Antigua, but she makes a point of noting additional species that she believes to be unique to St. Kitts, focusing especially on one species of lizard in which the head “is always of a bright
flame colour, and very beautiful: I never knew of this particularity being observed among lizards in any of the Caribbee Islands except St. Kitt’s” (29). Interestingly, for recent biological researchers, the lizard populations of the Greater and Lesser Antilles have become the modern equivalent of “Darwin’s finches,” as a means to understanding speciation (Losos 210-24): “since archipelagos are forums for recent adaptive radiations, and hybridization occurs in the early stages of the differentiation of a taxon, an unusually high incidence of hybridization on islands may in fact occur” (Grant 8-9). But Riddell’s understanding of hybridity, of course, engages with more contemporary discussions of reproduction and climatology. She emphasizes, for instance, the importance to the islands of their thriving population of mules, which are “extremely serviceable,” “much employed,” and “bred and imported here in great numbers” (53). In the late eighteenth century, the conception of the Caribbean as being especially conducive to hybridity had its source in theoretical debates of natural history in which “mules”—a term that designated both the progeny of a horse and an ass, and could be used interchangeably with “hybrids” and “mongrels” at this time—played a central role.98

Hybrids formed a point of contention for naturalists debating analogical possibilities between social and natural orders, between humans and the animal or vegetable kingdoms, and this controversy had obvious import for colonists of the West Indies where botanical and zoological alterations were widely acknowledged. Linnaeus’s “sexual system” of botany, which classified plants according to their reproductive parts and placed them within “marital” relations, enjoyed immense popularity and, especially as versified by Erasmus Darwin, took analogies between plants and humans to their extreme. However, Buffon and his followers, William Smellie in particular, instead

98 Smellie uses these terms interchangeably in the section titled “Of the Sexes of Plants” in his Philosophy.
advocated comparisons between humans and zoology, and derided the “sexual system” of
plants as a misapplied analogy. In *The Philosophy of Natural History*, Smellie ridicules
Linnaean analogies between plants and animals or humans, anxiously imagining the
hybridizing “consequences” of sexual reproduction in the vegetable kingdom. Smellie
argues that in plants, pollen, “by flying promiscuously abroad”:

might impregnate different species which happened then to be in a fit condition
for the reception of male influence….Nature intends that plants should multiply
and perpetuate their kinds; but the sexual hypothesis makes her take the most
effectual measures to prevent that intention, and to introduce *universal anarchy*
among the vegetable tribes. Were [the Linnaean sexual system] true, the whole
vegetable kingdom, in a few years, would be utterly *confounded*: Instead of a
regular succession of marked species, the earth would be covered with *monstrous
productions*, which no botanist could either recognize or unravel” (italics mine).99

Smellie thus dismisses Linnaeus’s sexual system of botany and assures that contrary to
such “anarchy,” “All laws of Nature are fixed, steady, and uniform.”100 In Smellie’s
formulation, uncontrolled plant sexuality disrupts order and continuity in a way that, if
allowed as analogical to humans, poses obvious threats to gender, class, and racial
boundaries. For Smellie, in a sexual system of vegetation, the production of hybrid
monstrosity hinges on the immodest (female) plant’s indiscriminate receptivity to (male)
pollen, regardless of “kind.” It is on women’s sexual control that “kingdoms,” both
national and natural, depend for their preservation. In this way, the racial phobias of the
contemporary historian of the West Indies, Edward Long, also center on the behavior of

99 Ibid. 247.
100 Ibid. 251.
women in his warnings of the concurrent scene in London, where, he claims, “The lower class of women in England, are remarkably fond of the blacks [and]...in the course of a few generations more, the English blood will become so contaminated with this mixture,...this alloy may spread so extensively, as even to reach the middle, and then the higher orders of the people,” degenerating “the whole nation.”

Although Smellie makes no mention of race in this section of his treatise, class and especially gender are clear subjects of his concern. Riddell, on the other hand, responding to her naturalist friend, viewed botany’s analogical potential rather differently: while she “set so high a degree of value and esteem upon” Smellie’s *Philosophy*, she chastised his efforts “to controvert [Linnaeus’s botanical] systems.”

Beyond her implied support for Linnaean analogies between plants and humans, Riddell arguably endorses a positive conception of the fluid possibilities for gender within nature. As Alan Bewell has shown, Linnaeus’s botanical classifications offered women the opportunity to explore sexuality while demonstrating scientific acumen. Smellie evidences concern for analogical gender ambiguities when, for instance, in *Philosophy*, he apologizes for a discussion of “hermaphrodite plants,” parenthetically explaining that he “must speak in the language of the system”; and he attacks the idea of spontaneous sex-changes asserted by “sexualists,” through which “trees, which had continued many years under the character of females...had suddenly dropped their female forms, and assumed the more robust features peculiar to the male part of the

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101 Quoted in Wheeler 141.
102 Kerr 2:380.
creation!” He similarly polices gender lines when responding to a letter in which Riddell wittily compares herself to a “creeping plant” in Edinburgh’s botanical garden. She quips that the intensity of her studies makes her feel “rooted to one spot of the earth, and with the mere privilege of ambulating backwards and forwards on my own grounds, which is no more than” the radius of movement enjoyed by that “vegetable.”

Rebuffing what he perceives as a challenge to gender distinctions, Smellie indulges her Linnaean analogy insofar as to inform Riddell, “That you are a vegetable, as you say, I allow. But that you belong to the cryptogamia class [in which sex is difficult, if not impossible, to determine], I deny”; and he methodically proceeds to specify precisely how she should be categorized within a botanical system. Riddell’s willingness to challenge conventional gender roles is apparent in her Wollstonecraftian dissatisfaction with the “inconsistent” and “fickle” state of contemporary British women, declaring, for instance, a desire “to free” her daughter “from the little weaknesses and delicacies that render women ‘interesting’—and miserable, 9 times out of 10.” In reply to Smellie’s botanical categorization that rooted Riddell firmly in the feminine, she exploits Smellie’s fears of hybrid monstrosity and ambiguity, to retort, “You…omit making known to me under what order I am to look for you in the botanical dictionary; I am inclined to insert you, in the appendix to mine, as a non-descript.” Riddell did, in fact, include a section of “non-descript” botanical species at the end of Voyages, noting that “The Linnaean Names of the following Plants are Unknown” and closing her work with a passage from Thomson’s Seasons: “Thus spring the living herbs, profusely wild, / O’er all the deep

104 Smellie, Philosophy, 252.
105 Kerr 2:370.
106 Kerr 2:378.
107 Kerr 2:391; Gladstone 37.
108 Kerr 2:381.
green earth, beyond the pow’r / Of botanists to number up their tribes” (105). Like many contemporary women writers, Riddell employs taxonomic ideologies even as she questions their adequacy to encompass the multiplicities of nature and their sociological connotations.

In *Voyages*, Riddell selectively draws on the major naturalists of her day, and thus ultimately retains an individual (or perhaps hybrid) scientific perspective of biological alterations in the West Indies. Smellie’s repugnance toward the sexual system of plants indicates a deeper fear of the chaotic potential of hybridity through sexual reproduction. He does not deny that “hybrids” exist in nature, but follows Buffon (whose works Smellie translated in 1780-85), declaring that, in the vegetable world, these “variations” come about by means other than sexual procreation. For Smellie and Buffon, “culture,” soil, and climate, for example, are sources of alterations in both plants and animals. Yet, importantly, regardless of the cause for botanical alterations, in the West Indies such changes in vegetation appear to reverse the generally-accepted direction of biogeographical “improvement.” Whereas Buffon primarily associated the West Indies with degeneration, on the Leeward Islands, Janet Schaw notes, “I have found out that many more of the plants were of the same tribes at least with what we have [in Britain], but so greatly improved, that they were hardly to be known. How different is that from the plants of this country [the West Indies], when they come to our Northern Climate.”

And Riddell similarly, favorably compares West Indian vegetation with that of Britain, asserting for instance that “the *mammoea Americana*, or *mammee sappota*, equals, if not surpasses the English oak in beauty” (96). If plants could be said to improve in the West Indies, what are the implications of this within a botanical system of human analogues?

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109 Schaw 102.
While Buffon assigned vegetation (particularly as a food source) a role in effecting alterations in animals and humans, he rejected Linnaeus’s attempts to draw comparisons between plants and humans, instead elevating his own work on zoology as the surest means to gain insight into humankind and its hybrid potential.

Hybridity importantly informed Buffon’s understanding of zoological species, as well as of the West Indies. For him, degeneration occurred largely through the effects of food and climate over time, and by means of it, “a distinct species” could emerge (7:445). Distinction among species could be tested by causing a “degenerated” individual to mate with a member of its original “family,” and if the intermixture proved either barren or produced hybrids, the species were indeed distinct. Buffon vehemently asserts that zoological hybrids occur most frequently in warm climates and refutes the widely-accepted conviction of mules’ absolute sterility. Significantly for the work of Riddell, Buffon documents the reproductive capacity of a “she-mule” on St. Domingo, a colony of the French West Indies, to corroborate his insistence that warm regions promote hybridity (8:15-17). He also indicates the possibility of considering races analogously with hybrids: “Does not a race, like the mixed species, proceed from an anomalous individual, which forms the original stock?” (8:34). Although Buffon maintains that humans compose a single species, he implies that climate’s ability to produce distinct “races and nations” is increased in warm regions, similarly to its ability to produce hybridity. Contemporary theories of natural history therefore invested the West Indies with a hybrid potential that Riddell could transpose in constituting a hybrid British nationality.

Buffon famously invested the Americas with heightened potential for alteration, mainly conceiving this possibility in degenerative terms. Degeneration was often
manifested in a diminishment of reproductive power, as well as of size or strength in animals and of activity in humans. He saw degeneration as particularly exemplified by the American Indian. Such assertions of degeneration provoked Bryan Edwards, in his history of the British West Indian colonies, to denounce “the speculations of Mons. Buffon and some other French theorists” who posit that “the New Hemisphere” decreases “the capacity of improvement” in the human species (viii ix). Yet Buffon also provides means for positive renovation in the Americas. He admits, as Schaw and Riddell noticed also of plants, that several species of quadrupeds “have improved by the influences of the [American] soil and climate.” Buffon notes that “degeneration” and “improvement” are essentially the same in the view of “Nature” because both indicate a change from the original form (7:399). He sometimes oscillates in value judgments of alterations, especially in instances of domesticated animals whose “improvements,” as perceived by humans, he deems more likely to be degenerations for the animals as species. Riddell similarly interrogates subjective valuations of “improvement” and “degeneration.” She records changes occurring in zoological species transported from Europe to the West Indies, observing, for example, that “The sheep soon lose their woolly fleece in this climate: Providence has clothed them with a lank brown hair instead; which, though it diminishes their beauty, is infinitely more serviceable to them in point of coolness” (54). At a time when species fixity was the orthodox doctrine of the Church and of a majority of naturalists, Riddell mitigates her straightforward assertion of species mutability by imputing these changes to God’s wisdom; but she also enters the Buffonian conundrum.

110 Buffon 7:448. Buffon noted “improvement” in “four or five species of polecats” in the Americas, and wrote that “The roebucks and the fallow-deer, as well as the mouffettes, are more numerous and likewise stronger in the New than in the Old Continent.” See also Bewell’s Colonial Disease and Grove for studies of eighteenth- and early nineteenth-century thought regarding the potential of land cultivation to “improve” both natural environments and climate.
of questioning whose perspective matters when labeling a species “degenerate.” The sheep may have degenerated according to European standards of beauty, but Riddell presents the species as improved in terms of making a successful adaptation to the environment that will increase its ability to survive and propagate. Interestingly, in their respective texts on the West Indies, Edward Long and Bryan Edwards correspondingly assess climatic alterations to the anatomy of British colonists, who, they claim, have developed deepened eye-sockets that conveniently shade from the “strong glare” of the sun (Long 2:261; Edwards 2:10). For Riddell, improvements in the British colonists of the Leeward Islands also proceed from nature. Just as the environment is conducive to promoting British national hybridity, Riddell indicates its ability to promote British values.

**British Values in the West Indies**

British Protestant industry supports a relationship with nature that eighteenth-century philosophers molded to fit the northern climate, portraying adversities in nature as a blessing that produces a nation of improvers. According to Buffon, “there is a direct correlation between the degree of civilization that a given people attains and the mastery that they exercise over nature” (qtd in Roger 263). In his *History of Jamaica* (1774), Long emphasizes that sterile land increases the industry and ingenuity of its inhabitants (1:441). This idea is further supported in Crevecoeur’s *Letters from an American Farmer* (1782) which theorizes, “Where barrenness of soil or severity of climate prevail, there she [Nature] has implanted in the heart of man sentiments which overbalance every

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111 Sheep play a key role in Buffon’s chapter, “Of the Degeneration of Animals”; interestingly, Riddell’s description of the alteration undergone by European sheep brought to the West Indies is similar to Buffon’s description of the species when “restored” to its original form (7:398-400).
misery and supply the place of every want,” while “extreme fertility of the ground always indicates the extreme misery of the inhabitants!” (175-76). In response to these contemporary contentions, Riddell plays down the paradisiacal conception of West Indian nature, instead focusing on the islands’ natural adversities as well as the colonists’ ability to overcome these adversities and even convert them to advantages.

In contrast to the indolence indicted by Riddell in Madeira, she records numerous examples of industry within the Leeward Islands. Riddell expresses admiration for the islands’ architecture, remarking on its utility and stylish modernity. Unlike the main city in Madeira, that in Antigua “is one of the largest and most handsome in the West Indies. The streets are wide and well laid out, and the houses mostly commodious and airy”; the city’s church, courthouse, and military barracks are “elegan[t]” and “handsome” (49). Moreover, while the soil of these islands is not presented as boasting the richest prospects, the taxing nature of the British West Indies serves as a guarantee that its inhabitants will prove industrious. Riddell describes the salt lakes of St. Kitts, for instance, as foul-smelling and noxious, but they are also deemed very lucrative (27). On Antigua, the scarcity of fresh water necessitates the construction of great “tanks and cisterns” to preserve rain water for its inhabitants; and “leaden pipes” have been structured for transference of spring water on St. Kitts (48, 26). Riddell highlights several indigenous species of poisonous plants, lizards, and insects, but can sometimes counter with a vegetable antidote found on the islands; and her botanical delineations convey a litany of manufacturing, and especially medicinal, uses that invoke the West Indian propensity for disease while suggesting the ability of British scientific discoveries to nullify this threat. Recasting the colonies as producers of medicine (rather than of
disease), Riddell presents “castor oil,” for example, an “almost infallible medicine in
cases of the greatest danger,” as “one of the most valuable tropical productions imported
to Europe” (102). Riddell often stresses the natural dangers of the islands’ coral reefs and
the difficulty of travel on certain terrains which require excellent piloting skills. These
natural dangers serve both as a natural defense for the islands and also as a natural test of
greatness. In being able to control and improve the treacherous environment of these
islands, Britons (im)prove the worth of their nation by increasing the trade and prosperity
of the British empire. In a similar vein, Edward Long noted the greater natural fertility of
soil in the French West Indies, yet credited West Indian Britons with the capacity to
overcome deficiencies in their own islands and dominate sugar production (1:437). The
manufacturing of sugar and the slavery that enabled it, however, mark a facet of British
industry that Riddell largely ignores.

Considering the overwhelming predominance of slavery in “the sugar islands,”
Riddell’s refusal to treat this fundamental aspect of West Indian society produces a
striking absence in her narrative. Certainly for those sharing the anxieties of Long, “the
father of English racism,” the West Indian potential for hybridity immediately conjured
up slave-owners’ unruly passions, resulting in taxonomies of racial gradations in the
islands’ inhabitants (Wheeler 210): Long warned that such “mixed progeny” would form
“a vicious, brutal, and degenerate breed of mongrels” (2:327). At the same time, the
West Indies were at the center of abolitionist debates raging in Britain in the 1780s and
early 1790s, where brutally corrupt degenerations were associated, not with Long’s so-
called “mongrels,” but with slave-owners whose actions caused many Britons to feel that
the integrity of their national character was at stake. Abolitionists insistently posed the
question, how can a nation that prides itself on, and indeed, *defines* itself by, its freedom, permit the atrocity of slavery to occur under its government? In her narrative, Riddell only once denominates “slaves” as such, generally referring to blacks as “Negroes,” a term that elides their subjugation (37). She chiefly speaks of their particular uses of plants and animals, which makes it seem as though West Indian slaves are hardly slaves at all, and possess abundant time to devote to their own needs.

Riddell’s motives for overlooking slavery in her *Voyages* were complex. Her family of plantation owners clearly had imbibed the West Indian doctrine of white supremacy, but Riddell herself held strongly abolitionist principles, as is evident in a letter to Smellie that reflects on “the accursed traffic of the slave trade” and the massive and bloody slave insurrection on St. Domingo in the French West Indies in 1791 (Kerr 2:375-76).112 Although Riddell “deplore[s]” its “effusion of…blood,” her discussion of the Haitian Revolution reveals her support for the ideals of “liberty” and “equality” as well as a faith that the West Indies can and will improve, even if by violent means. In *Voyages*, on the other hand, probably partially in deference to her family’s sentiments, Riddell sets the danger of insurrection in the distant past, and thereby minimizes this danger’s actual escalation as whites became increasingly outnumbered by the slave population (50).

This threat of slave revolt had a paradoxical effect on white colonists’ notions of British freedom, one that comprises another motive for Riddell’s elision of slavery.

When Bryan Edwards describes the chief characteristics of these island societies, he

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112 It is also notable that, in this letter, Riddell more candidly acknowledges the devastations of West Indian disease, and specifically of yellow fever, than she does in *Voyages*. In 1802, Riddell’s husband died in the West Indies, presumably of disease.
particularly lauds their fervent dedication to liberty and equality, explaining that the imposition of slavery on blacks causes white colonists to demand greater equality from other whites, regardless of class or nation, to an extent that would never be allowed in Britain (2:7-8). Here, Scots, Irish, Welsh, and English of all stratifications are on virtually equal footing, and, indeed, band together to form a solid front of white supremacy. Thus, for Riddell, addressing slavery in her narrative would have meant having to admit that the national hybridity, the “British” unification found in the West Indies, was due less to an intensification of British values than to the perversion of those values and the racial hierarchy born out of slavery. Her refusal, in Voyages, to consider this West Indian paradox underscores Riddell’s embarrassment at the continuance of racial oppression and her recognition of its growing unpopularity with British readers. However, at the same time, her depictions of British industry and of blacks in a state resembling emancipation arguably register Riddell’s hopeful vision of improvement in these hybridity-prone islands whose natural history remains charged with so much potential for change.

In Chapters Three and Four, I investigate ways in which women writers’ concerns with scientific concepts of hybridity produce implications not only, as delineated by Riddell, for matters of race, gender, and nation, but also for the construction of literature itself. In the writings of female authors, such as Anna Seward and Charlotte Smith, natural history becomes a means of policing standards of literary plagiarism and even of gesturing toward the formation of the literary canon.
Chapter 3

The Evolution of the Plagiarist: Natural History in Anna Seward’s Order of Poetics

Anna Seward’s vitriolic attacks on the poetical borrowings of Charlotte Smith remain a formidable embarrassment for scholars seeking to restore the prominence of Britain’s two most popular female poets of early Romanticism. While Smith has received notable critical attention in recent decades, Seward is currently best known, not for her literary efforts, but for denouncing Smith’s *Elegiac Sonnets* (1784) as “hackneyed” “hedge-flowers”—“full of notorious plagiarisms.”114 Seward’s accusations likely influenced Smith to insert quotation marks in the third and subsequent editions of her sonnets; and the critical power Seward exerted in her lifetime continues to hold sway over modern scholars who repeatedly have been put on the defensive, compelled to find various interpretations of Smith’s plagiarisms that might defuse imputations of scandal.115 Perplexed by the viciousness of Seward’s critiques, critics often trivialize them as merely denoting jealousy of Smith’s literary success.116 As most treatments of this controversy center on Smith’s vindication, few attempts have been made to assess the motives behind Seward’s attacks. I would like to open a new mode of explanation for Seward’s anxieties about plagiarism, one based in her conception of natural history.

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113 This chapter previously has been published in *Eighteenth Century Life* 33.3 (Fall 2009): 106-27.
Significantly, Smith was not the only poet to draw Seward’s disapproval for acts of plagiarism. The poet, physician, and naturalist, Erasmus Darwin, was Seward’s neighbor of nearly twenty-five years, and Seward eventually became his biographer, publishing *Memoirs on the Life of Dr. Darwin* in 1804. In the *Memoirs*, Seward justifiably accuses Darwin of plagiarizing lines of her verse in the first part of his long scientific poem, *The Botanic Garden* (1791). As I will demonstrate, natural history taxonomies functioned as a template for what I term Seward’s “order of poetics” and her perception of plagiarism can best be explained within this larger critical context. Seward grounded much of her authority in the overlapping vocabularies, methodologies, and teleologies of literary criticism and natural history, assuming the critical persona of a literary naturalist.  

Examining this interrelation will shed new light on current scholarly studies of plagiarism and poetic form, as well as on Seward’s censures of Darwin’s and Smith’s poetry.

Seward’s thinking about literary imitation was shaped by a belief in fixed biological forms that tended to force newness into two categories, those of originality and hybridity. She viewed deviations from principles of originality with distrust, and considered Darwin’s and Smith’s plagiarisms to be degenerate, stylistic hybrids. By analogizing authorial style with fixed species in her critique of Darwin’s early theory of evolution, Seward associated unsuccessful literary imitation with zoological mutability, and Darwin’s violation of both natural and poetic order applies to Smith’s imitations as well. But although Seward condemned Darwin’s stylistic hybridity, she praised his

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formal choices as “original”—an endorsement categorically denied to Smith’s sonnets. Seward’s derogations of Smith’s formal and stylistic hybridity ultimately mark her efforts to disqualify this rival from what Seward called “the sonnet claim.” Appropriating the naturalizing authority of science, Seward asserted the originality of her own works while indicting the hybrid monstrosity that made Smith’s verse unclassifiable within the order of poetics.

**Literary Naturalism**

Her modest disclaimers make it easy to overlook Seward’s critical engagements with natural history. Referring to the *Memoirs* as “my little Darwiniana” and “my feminine Darwiniana,” she employed diminutive rhetorical gestures in anticipation of derisive responses to her criticism of Darwin’s scientific texts (6:55, 94). These *Memoirs on the Life of Dr. Darwin* are, in fact, less a biography of Darwin’s life than a criticism of his works that brings the focus back to Seward. The text’s malicious undertone led Charlotte Smith to be “reminded of a jackal at prey.” Nor were reviewers to be put off by Seward’s disavowals of scientific pretension (6:94). A commentator from the *Critical Review* uprooted Seward from scientific discourse to plant her securely in that of literary criticism, remarking that “in her critical examination and analysis of the Botanic Garden, miss Seward is more at home than in ascertaining the comparative merits of the

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118 This is a phrase from Seward’s sonnet, “To Mr. Henry Cary, on the Publication of his Sonnets,” first published in 1788. Daniel Robinson makes extensive use of this phrase and explains that “the sonnet is a form that women writers deliberately claimed in order to legitimize themselves as poets” (“Reviving the Sonnet,” 99).

Zoonomia with the works of Hippocrates and Galen.”\textsuperscript{120} Relegating her to the literary
realm reflects a prejudice against her gender with which Seward was well acquainted.

Scoffing at contemporary objections to women’s study of natural history due to its
emphasis on anatomy and reproduction, Seward defended the propriety of reading
Darwin’s poems, \textit{The Botanic Garden} and \textit{The Temple of Nature}.\textsuperscript{121} She rationalized the
depiction of “floral harems” in the former as being consistent with the “real,”
“discovered” Linnaean system of plant sexuality, and asserted that the latter poem “can
only be unfit for the perusal of such females as...are totally ignorant that, in the present
state of the world, two sexes are necessary to the production of animals” (6:84).\textsuperscript{122} These
justifications accord with Seward’s support of female education and her admiration of
the need for caution. When Darwin first conceived of \textit{The Botanic Garden}, he suggested
that they divide the task, but Seward declined, believing that “the plan was not strictly
proper for a female pen” (\textit{Memoirs}, 131). She later expounded, “That which it might not
be strictly proper for a woman to write, may yet be not unfit for her perusal” (6:144). Her
cautious double negative maintains women’s right to attain knowledge, particularly of
natural history, and simultaneously acknowledges ideological restraints necessitating
women’s prudence when committing such subjects to print. Seward exercises her
propriety specifically in regard to Darwin’s plan—one can imagine the critical sarcasm

\textsuperscript{120} Critical Review (1804) SER. 3, 2:198.
\textsuperscript{121} For studies of controversies surrounding women’s education in botany, the most popular division of
natural history, see Ann B. Shteir, \textit{Cultivating Women, Cultivating Science: Flora’s Daughters and Botany
in England, 1760-1860} (Baltimore: Johns Hopkins Univ., 1996); and Alan Bewell, “‘Jacobin Plants’: Botany as Social Theory in the 1790s,” \textit{The Wordsworth Circle} 20.3 (Summer 1989): 132-39. See also
Sam George, \textit{Botany, Sexuality and Women’s Writing 1760-1830: From Modest Shoot to Forward Plant
}(Manchester: Manchester Univ., 2007).
\textsuperscript{122} Seward, \textit{Memoirs of the Life of Dr. Darwin, Chiefly During his Residence at Lichfield, with Anecdotes of his Friends, and Criticisms on his Writings} (London: J. Johnson, 1804), 217.
and moral censure to which Seward would have been exposed as an unmarried woman collaborating with Darwin in versifying the “sexual system”—but she had no qualms about applying natural history to poetry, per se. She praises this “original” aspect of Darwin’s poem, and her critiques of Smith do not mention her use of natural history; some of Seward’s own poems express similar knowledge, and she could be a stickler for natural-historical accuracy in the poetry of others. In criticism of The Seasons, Seward writes that “one of the most strikingly exceptional violations of NATURAL HISTORY is committed by the generally so very accurate Thomson….it is a gross anachronism to attire the SPRING in [roses]” (1:19-20). Regarding a poem by Helen Maria Williams, Seward notes, “Helen is also a little out in her zoology—” (3:6); and even Erasmus Darwin receives correction when Seward, critiquing The Botanic Garden in the Memoirs, catches him in a false ornithological observation regarding the Redbreast, and disapproves of botanical alliances formed around the English nettle (362, 336). But though Seward was quick to correct the natural history of her poetic peers, she also believed in the necessity of poetic license. After arraigning Milton for a “violat[ion]” of natural history, Seward rebukes herself, “But O! while I thus transform myself into one of those unfeeling critics, of whom my spirit is so impatient, how sincerely do I abjure such sickly accuracy” (1: 208). Her preference for poetic imagination over “sickly accuracy” also surfaces in her correspondence with the physician and author, Thomas Percival. Seward politely approved of her friend’s dissertation on maintaining natural historical “truth” in verse, but her commitment to sentiment and imagination in literature caused her to demur, “Yet, I confess, I think slight and skirmishing allusions to fabulous

123 Poems in which Seward incorporates elements of natural history or natural philosophy include Elegy on Captain Cook, “Bermuda,” “The Terrestrial Year,” and “Colebrook Dale,” among others.
circumstances have often great beauty. Surely the philosopher should pardon them, when they happily serve the purposes of illustration and imagery” (1: 18).\textsuperscript{124} Her sympathy for imaginative free play with nature ensured enthusiasm for the concept, if not always the execution, of Darwin’s \textit{Botanic Garden}. In her letters, Seward repeatedly lauds the poem as filling the “desideratum” pointed out in John Aikin’s “Essay on the Application of Natural History to Poetry” (1777).

Seward felt a deep conviction in her worth as a poet, but believed even more deeply in her critical capacities: “Many excel me in the power of writing verse; perhaps scarcely one in the vivid and strong sensibility of its excellence, or in the ability to estimate its claims.”\textsuperscript{125} She reveled in the “cross-dressing” possibilities of literary criticism, sending several letters to the \textit{Gentleman’s Magazine} under the pseudonym of “Benvolio,” and advising readers, “be it remembered that souls are of no sex, and their effusions therefore may, at pleasure, assume a masculine or a feminine application.”\textsuperscript{126}

In her critique of the \textit{Botanic Garden} in the \textit{Memoirs}, Seward defines the spondee and states in a footnote that “The explanation is for the ladies,” rousing one reviewer to proclaim, “Surely this passage must have been the addition of some \textit{male} friend.”\textsuperscript{127}

Despite sometimes being outed in her attempts to destabilize gender identities through her critical persona, Seward wielded a good deal of critical power and recognized that employing science as an underlying framework could add further authority to literary criticism.

\textsuperscript{124} Thomas Percival, \textit{Moral and Literary Dissertations...On the Alliance of Natural History, and Philosophy, with Poetry} (1784), 232.
\textsuperscript{125} \textit{The Poetical Works of Anna Seward; with Extracts from her Literary Correspondence. Edited by Walter Scott, Esq., in Three Volumes} (Edinburgh: Ballantyne and Co., 1810), 1: xiii.
\textsuperscript{126} \textit{Gentleman’s Magazine}, August 9, 1787; quoted in Ashmun 142.
\textsuperscript{127} \textit{Memoirs} 181; \textit{Monthly Review} 1805 (47): 300.
In her critical analyses, Seward functioned as a literary naturalist, closely observing minute details of literary works as the naturalist scrutinizes “works” of nature. The rhetoric of late eighteenth-century literary criticism overlapped with that of natural history so that Seward, like other critics of her day, referred to “species,” “orders,” and “classes” of verse. She also obsessively practiced the naturalist’s methods of classification: ordering and ranking, not only individual poems, but the poets themselves. In so doing, Seward was in step with her time. Naturalists of the eighteenth century often practiced a nascent form of what we now call “sociobiology.” 128 And this interaction of science and sociology can be seen, for example, in William Withering’s interpretation of the Linnaean system, where “species resemble individuals,” “classes resemble nations,” and so on. 129 Seward reveals her own tendency to naturalize socio-political convictions through correlations with natural history in a letter published in The Gentleman’s Magazine in 1793. Disillusioned by the violence of the French Revolution, she attempts to persuade her friend and correspondent, Helen Maria Williams, to return from Paris, arguing that “the different talents and dispositions of men, inherent and acquired; the comfort, protection, and prosperity of civilized society; the dispensations of providence in the vegetable, animal, and rational universe; the silent lessons of natural religion, and

129 William Withering, “Introduction to the Study of Botany,” An Arrangement of British Plants, According to the Latest Improvements of the Linnaean System to Which is Prefixed an Easy Introduction to the Study of Botany. Illustrated By Copper Plates By William Withering, 3rd ed., 4 vols (Birmingham: Robinson, 1796), 1: 6. Withering and Darwin were both members of the Lunar Society of Birmingham. In The Lunar Men: The Friends who made the Future, 1730-1810, Jenny Uglow relates two instances in which Darwin appropriated Withering’s work. In the first instance, Withering taught Darwin a cure he discovered through treatment with digitalis, and Darwin then published this information in the name of his deceased son. After this occurrence, Withering hardly spoke to Darwin again (Faber and Faber, 2002), 279; however, this did not stop Darwin from “stealing [Withering’s] pronunciation scheme” of botany a few years later for inclusion in Darwin’s translation of Linnaeus. Withering was furious, but “Darwin simply shrugged off the dispute as if it was not worth bothering with” (381-82).
the precepts of revelation, are all the reverse of Paine’s equalizing creed” (3:203, italics mine). In the late eighteenth century, terms associated with “order” invited social, at least as frequently as natural-historical, application. In her letter to Williams, Seward holds up the ranks and distinctions in nature to corroborate social hierarchy—a paradigm which, through her literary criticism, she extends to “the different talents and dispositions” of poets.

By arranging poets into a taxonomy resembling systems of natural history, Seward charts one model of the hierarchical canon that appeared for the first time in English criticism in the second half of the eighteenth century, and thus concurrently with Britain’s rising interest in natural history. Seward and her contemporaries employed a “logic of differentiation” that systematized the canon within “workable normative boundaries” that “could be ever more finely specified.” These canon-makers’ attempts to combine absolute valuation with an “open-ended process of comparison” parallels natural-historical efforts in the late eighteenth and early nineteenth century to synthesize the methodologies of Carolus Linnaeus and Georges Louis Leclerc, Comte de Buffon, arguably the two most significant naturalists of the eighteenth century. While Linnaeus emphasized the rigid classification of species based on a minimum number of morphological differences, Buffon viewed Linnaean classification as too “abstract,” insisting instead on “a complex interweaving of behavioral, biological, geographical, and

130 Trevor Ross, “Two Ways of Looking at a Canon,” Eighteenth-Century Life 21.3 (Nov 1997): 91. Thanks to Ted Underwood for alerting me to this source. While Ross places the hierarchical canon’s inception more generally in the eighteenth century, his chief examples (both here and in his text cited below) are from the century’s second half, particularly in the efforts of Joseph and Thomas Warton.

131 Ross, The Making of the English Literary Canon from the Middle Ages to the Late Eighteenth Century (Montreal & Kingston: McGill-Queen’s Univ., 1998), 253, 255.
relational properties that set one species apart from another.”132 Seward’s order of
poetics attempts to synthesize similar, competing methodologies, producing tensions in
her ordering principles.

In Seward’s formulation, a rigid, hierarchical chain of being converges with an
attempt at objective appreciation of each poet’s intellect or verse specialty, just as
naturalists often maintained hierarchical notions even as they strove to analyze each
species with attention to unique characteristics, formed to particular behaviors and
environments. Seward’s letters are filled with these groupings and separations,
associating poets according to the influence of literary predecessors, or by their
predilection for a given verse form so that each poet belongs to a particular class:

the first class seems formed by those who are at the head of some particular
branch in their science;—as Spencer of the allegoric; Shakespeare of the
dramatic; Milton of the epic; Butler of the burlesque; Dryden, Pope, and Sam.
Johnson, of the ethic, heroic, and satiric; Thomson of the descriptive; Prior of the
narrative and epigrammatic; Gray of the lyric and elegiac; Shenstone of the
pastoral.

Admitting the justice of my criterion for the formation of the first poetic
classes amongst our authors, it must yet be confessed, that there are, in the
second, bards of more exalted genius than some whose names have a right to be arranged in the first, as being first in their line of writing. For instance, Collins
and Mason are much greater poets than Butler and Shenstone; but then they have, in Gray, a superior in their line, the lyric… (Poetical Works, 1:lxxxiii).

By familiarizing herself with the traits of individual poets, Seward felt that she could, in addition to ordering a literary taxonomy, spot imitations in the works of others and even identify the authors of anonymous poems.

**Classifying the Plagiarist**

When a Linnaean botanist lights on an unknown specimen of plant, he classifies by identifying singular characteristics that prove its conformity with a class already in existence. Similarly, Seward, thriving in the role of *literary* naturalist, took pride in her ability to identify unknown specimens of verse. But rather than counting stamens, Seward looked to the poetic attributes that would indicate the work of a specific author. In the *Memoirs*, Seward relates an instance in which Darwin published a poem anonymously, and she boasts the success of her method of classification, having “s[een] the Darwinian stamp on the lines at one glance…as if the peculiar style and manner of his muse were not instantly apparent” (394-95). Seward’s identification of “the Darwinian stamp” reflects the notion that each poet possesses a distinct style, which is his own individual property, that can be readily identified and classified under that author. She details Darwin’s authorial traits as a naturalist might enumerate the characteristics of a particular species:

The Darwinian peculiarity is in part formed by the very frequent use of the imperative mood, generally beginning the couplet either with that, or with the verb active, or the noun personal. Hence, the accent lies oftener on the first syllable of each couplet in his verse than in that of any other rhymist; and it is, in
consequence, peculiarly spirited and energetic. Dr. Darwin’s style is also
distinguished by the liberal use of the spondee (180-81).

Seward here indicates the ease with which one who is familiar with a poet’s style might
correctly classify a specimen of that poet’s verse. She also later cautions that “we ought
to look jealously at all which do not carry to the mind of the reader internal evidence of
their imputed origin” (400). This plea for circumspection in verifying authorial identity
through internal evidence signifies her anxiety for the correct attribution of her own
poetry, at least as strongly as that of Darwin. For Seward, being able to recognize a
poet’s style had important bearings on determining plagiarism.

In the Memoirs, Seward recounts the genesis of The Botanic Garden, explaining
that Darwin’s poem grew from verses written by herself upon first seeing Darwin’s real-
life botanic garden in Lichfield in 1779. Darwin declared that Seward’s verses should
“form the exordium of a great work,” and made the proposal of poetic collaboration that
Seward refused. She relates that Darwin then sent her verses to The Gentleman’s
Magazine

in her name…but, without consulting her, he had substituted for the last six lines,
eight of his own. He afterwards, and again without the knowledge of their author,
made them the exordium to the first part of his poem….no acknowledgment was
made that those verses were the work of another pen. Such acknowledgement
ought to have been made, especially since they passed the press in the name of
their real author. They are somewhat altered in the exordium to Dr. Darwin’s
Poem, and eighteen lines of his are interwoven with them (132).
Underlying Seward's exposé is the conviction that her style, the peculiar quality of her verse, is at stake. As Tilar Mazzeo's recent study makes clear, when original poetry is sufficiently distinct, it “remains so tied to the person of the author…that it remains [her] own even in the context of other texts,” and imitation is then bound to fail. Thus, for Seward, the distinctness of her poetic voice ensures its recognition and the failure of Darwin’s imitation. Because, in this era, imitation did not necessarily preclude originality, determining an attempt’s “success” or “failure” was of the utmost importance. Literary Romanticism concerned itself with two major categories of plagiarism: “poetical” (or “aesthetic”) and “culpable.” Culpable plagiarism entailed a moral judgment, but charges were rare and extremely difficult to prove since one had to demonstrate that borrowings “were simultaneously unacknowledged, unimproved, unfamiliar, and conscious” (2). Poetical plagiarism, on the other hand, indicated an aesthetic judgment that could rest on one or more of these four kinds of borrowings, and such charges were fairly frequent in the Romantic era. Seward’s accusations of Darwin for plagiarizing her verse were often strongly worded; she wrote of the lines of Darwin’s exordium, “four-fifths of them are mine verbatim, and mine the whole order of the scenery, so that a charge of plagiarism must rest somewhere” (3:156). However, as Seward knew, Darwin’s interweaving of additional lines with her own constituted an attempt at improvement, so that regardless of his degree of aesthetic success or failure, he could only be guilty of poetical (not culpable) plagiarism. Indeed, her accusations of poetical plagiarism against both Darwin and Smith centered on this aesthetic question of improvement. While successful improvement was heavily determined by unity of style,

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requiring the seamless integration of borrowed texts into the voice or style of one’s own production, “unimproved texts were frequently described as monstrous” (Mazzeo, 3-4).

Interestingly, Darwin delineates his own conception of plagiarism in the third Interlude of his The Loves of the Plants (the second part of The Botanic Garden, which was published before the first, in 1789). In a move that struck Seward as rife with hypocrisy, Darwin explains that “perhaps a few common flowers of speech may be gathered as we pass over our neighbour’s inclosure, without stigmatizing us with the title of thieves; but we must not therefore plunder his cultivated fruit.”

Darwin’s language of “inclosure” conjures up John Locke’s discussion of property rights in the second of his Two Treatises of Government (1690). Locke’s essay on property remained a touchstone for critical and legal disputes of plagiarism well into the nineteenth century, “explain[ing] one of the central metaphors employed by [Romantic-period] writers in bringing charges of illegitimate appropriation: the metaphor of the literary estate.”

Darwin’s natural description of “single words” and “common flowers of speech” as “lawful game” pays tribute to the Lockean notion of property legitimately acquired according to the laws of labor and improvement: “He that is nourished by Acorns he pickt up under an Oak, or the Apples he gathered from the Trees in the Wood, has certainly appropriated them to himself….The labour that was mine, removing them out of that common state they were in, hath fixed my Property in them.”

Just as Locke’s stipulation of “improvement” justified the enclosure of estates and England’s imperial appropriation of foreign lands, so did successful improvement justify writers in making similar literary appropriations from their peers. Admitting his conscious imitations of Edward Young’s Night Thoughts

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135 Mazzeo 11.
(1742) and John Langhorne’s *Country Justice* (1774), Darwin goes on to say that “there are probably many others, which, if I could recollect them, should here be acknowledged. As it is, like exotic plants, their mixture with the native ones, I hope, adds beauty to my Botanic Garden” (*Botanic Garden* 132). By discussing plagiarism using the language of vegetation, Darwin participates in the conversation of organic originality begun in Young’s *Conjectures on Original Composition* (1759). If not for its preceding date, Young’s work could almost read as a depreciating response to Darwin’s claim for the “beauty” of mixing other poets’ “exotic plants” with his “native ones,” for Young contends that “an Imitator is a transplanter of Laurels, which sometimes die on removal, always languish in a foreign soil.” Unlike Darwin, Young incorporates Lockean tenets of property only to denigrate those most applicable to literary disputes, describing “Imitations” as “a sort of Manufacture wrought up by…Labour, out of pre-existent materials not their own.” Labor here becomes harmful to composition, a detriment to originality, so that according to Young’s argument, Darwin’s labor in the *Botanic Garden*, and even the very site of the garden, aligns his work with cultivation and artificiality that opposes the natural growth of genius.

Despite Darwin’s plagiarism of her verses, Seward often praised his originality, but it was an originality that she found compromised. Throughout the *Memoirs*, Seward demonstrates instances of Darwin’s imitations, both literary and scientific. Evaluating instances of plagiarism was crucial to literary criticism in the decades surrounding the

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138 Illustrating Seward’s awareness of Darwin’s scientific imitations, near the end of her discussion of Darwin’s *Phytologia, or the Philosophy of Agriculture and Gardening*, which hypothesizes the sentiency of plants, she clarifies, “Of this theory, however, Dr. Darwin is neither the source, nor the first who drew the scattered hints of former philosophers concerning it, into a regular system. The ingenious and excellent Dr. Percival, of Manchester, preceded him in maintaining that system from the press” (*Memoirs*, 413).
turn of the century, and Seward’s letters abound with casually-mentioned detections of borrowings in the works of Virgil, Spenser, Shakespeare, Milton, Dryden, Pope, Swift, Sterne, Gray, Chatterton, Cowper, Burns, Southey, and others. For Seward, literary imitations were a matter of course that could greatly enrich poems when successful, or create monstrosity when trespassing against the critical guidelines of plagiarism. Therefore, each instance had to be considered individually to determine its legitimacy. In the Memoirs, Seward adopts Darwin’s technique of discussing literary imitation through the rhetoric of natural history, and monitors plagiarism’s chaotic potential when analyzing his most famous scientific work, Zoonomia (1794-96).

While Darwin imbued The Botanic Garden with hints of what we now call biological evolution, it was in Zoonomia that he declared his faith in “perpetual transformations” of species. Darwin began writing Zoonomia in 1770, and his preoccupation with evolution can also be traced to this year. Seward records that in 1770 Darwin painted on his chaise “his family-arms, which are three scallop-shells,” accompanied by the motto he inscribed to it, “Omnia e conchis,”—“Everything from shells” (6:136-37). Seward’s father, the Canon of Lichfield Cathedral, wrote a “satirically-playful epigram” on the subject that induced Darwin to paint over the arms and motto. Thomas Seward voiced one of the two main objections that would bring Darwin and Zoonomia under more widespread attack in 1795: “First and foremost, the Christian Church decreed that species were created by God and immutable. Second, the men of science also tended to accept the fixity of species because of the success of Linnaeus in classifying species of plants.”

Anna Seward’s analysis of Zoonomia in the

139 Desmond King-Hele, Erasmus Darwin: A Life of Unequalled Achievement (London: Giles de la Mare Publishers Ltd, 1999), 297. Although Linnaeus propounded the fixity of species for most of his life and
Memoirs follows her father’s lead in disapproving of Darwin’s irreligious ideals. She appeals to natural theology and the benevolent divisions drawn by the Creator as something that may be plainly observed in the natural world, and adamantly upholds species’ fixity. She specifically targets Zoonomia’s chapter, “Of Instinct,” in which Darwin argues that behaviors generally imputed to instinct, such as a bird’s song or the construction of a nest, actually result from “observation” and “imitation.” Despite his early disclaimer regarding the danger of confusing instinct with reason, Darwin implies that some species are in fact capable of reasoning, and goes so far as to make the leveling declaration: “Go, proud reasoner, and call the worm thy sister!” Darwin’s challenge to philosophical divisions between reason and instinct, which Seward saw manifested in his hybrid category of imitation, incites her to critique the concept of mutability among species.

Seward insists that “instinct cannot be that lower degree of reason which empowers the animal to observe, and by will and choice, to imitate the actions, and acquire the arts of his species; since, were it so, imitation would not be confined to his own particular genus, but extend to the actions, the customs, and arts of other animals” (Memoirs, 87). In the same vein, she continues,

If the Creator had indeed given to brutal life that degree of reason, which Dr. Darwin allots to it, when he asserts, that its various orders act from imitation, which must be voluntary, rather than from impulse, which is resistless, the

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resulting mischief of disorder and confusion amongst those classes had outweighed the aggregate good of improvement. It is reasonless, will-less instinct, limited but undeviating, which alone could have preserved, as they were in the beginning, are now, and ever shall be, the numberless divisions and subdivisions of all merely animal life. As attraction is the planetary curb of the solar system, confining all orbs to their proper spheres, so is instinct the restraint, by which brutes are withheld from incroaching upon the allotted ranges and privileges of their fellow-brutes; from losing their distinct natures in imitation, blending and endless (88).

Seward displays the anxiety of the taxonomist whose worst nightmare is that which does not fit: species lacking “distinct natures” so that entire orders become unidentifiable, unclassifiable, “blending and endless.” Countering this chaos, she invokes a Christian doxology adapted to substantiate the fixity of species (“as they were in the beginning, are now, and ever shall be”). The social injunction to be “content in one’s station” rather than “imitating one’s betters” echoes clearly.

It is crucial to note that in this passage and throughout her critique of biological constructions in *Zoonomia*, Seward specifically targets Darwin’s employment of concepts functioning within the contemporary discourse of literary plagiarism. “Imitation,” “improvement,” “voluntary,” and “instinct,” all contained literary connotations to fuel Seward’s contentions with this particular chapter of Darwin’s zoological study, and suggest that she used the context of zoology indirectly to naturalize her protests against Darwin’s plagiarism of her work, establishing comparisons between natural history and literary criticism to advocate poetic, as well as natural, order.
Failed literary imitation, as a form of stylistic plagiarism, comprised a problem that Seward found analogized in Darwin’s theory of zoological imitation. The threat posed by zoological imitation to the coherence of a “particular genus” correlates with the threat literary imitation poses to coherence of style and voice, risking aesthetic failure. Thus, when Darwin’s biological conception of imitation is applied to the poet’s “particular gen[i]us,” authors, as well as natural species, are in danger of “losing their distinct natures in imitation, blending and endless.” To Seward, Darwin’s plagiarisms of her work in *The Botanic Garden* constitutes an aesthetic failure because the style of the original author (Seward) disrupts that of the imitator (Darwin). The element of improvement is indispensable to an aesthetic judgment of Darwin’s imitation, which helps explain Seward’s claim that “the resulting mischief of disorder and confusion amongst” poetic styles “had outweighed the aggregate good of improvement.” For Seward, Darwin’s improvement to her verse is not improvement at all because the incoherence resulting from this mixture of two distinct styles makes his imitation unclassifiable within the poetic order, and untenable under the laws of nature. Zoological imitation analogizes failed aesthetic imitation in that both result in degeneration, as opposed to the positive improvement and stylistic coherence found in legitimate cases of imitation.

The illegitimacy of zoological imitation is explained in part by Seward’s assertion that imitation requires volition and therefore can occur only in humankind: “imitation…must be voluntary.” From a theological standpoint, volition (through reason) makes humans capable of error and improvement, and thus accountable to God for their actions. Seward presses this point, exploiting Darwin’s already notorious reputation as
an atheist by informing her readers that “to have admitted…the unblending natures of instinct and reason, must have involved that responsibility of man to his Creator for his actions in this his state of trial, which Dr. Darwin considered as a gloomy unfounded superstition” (93). Here Seward aligns herself and Darwin with opposing sides of a natural-historical controversy. Whereas Linnaeus was the first explicitly to include human beings within a formal classification of plants and animals, ordering them among monkeys, apes, and sloths, Buffon held more firmly to Cartesian dualism and preserved the distinction between humans and animals. For Seward, Darwin’s erasure of the distinction between reason and instinct also consequently erases the distinction between the categories of “voluntary” and “involuntary.” Within the scope of literary criticism, in which voluntary or conscious borrowing represents one of the basic elements of plagiarism, voluntary imitation implies responsibility for resulting aesthetic failings, as well as successes. Seward thus seizes on what she sees as Darwin’s attempt to elide being both “accountable to God for his conduct,” and accountable to principles of literary criticism for consciousness of his plagiarisms. The obviously voluntary nature of Darwin’s plagiarism of Seward’s poem can be contrasted to an instance in which Seward admits her “unconscious” or “involuntary plagiarisms” of Chatterton in a letter of 1800 (5:273). Because Seward equates “involuntary” with instinct, where instinctual actions can accrue no retribution, her involuntary plagiarisms differ from Darwin’s in that she cannot be held accountable, which accords with developing Romantic standards about

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acceptable imitation. If we can assume Seward’s aesthetic success, Chatterton’s lines had essentially become inseparable from her poetic identity so that her narrative voice remains whole and intact, whereas in the case of Darwin’s imitation, Seward implies that his incorporation of another’s poetic style creates hybrid monstrosity.

At the heart of Seward’s defense of the preservation of instinct lies her belief in a core poetic identity. Seward presents instinct as “resistless,” “limited but undeviating,” and as containing individual species “within their proper spheres.” In the context of contemporary discussions of plagiarism, her belief in instinct’s inherent fixity is consistent with her concern with the poet’s unique style or narrative voice: that which ensures that writers, like natural species, “are withheld from incroaching upon the allotted ranges and privileges of their fellow[s].” In his classic study of the critical tradition, M. H. Abrams notes “the tendency in Pope’s own lifetime to identify the element” of individual, “natural genius with those instinctive activities of animals, which because they evolve entirely from inherited dispositions, are examples of unlearned behavior par excellence.” To exemplify this connection of natural instinct with poetic identity, Abrams quotes Milton, who “had equated Shakespeare…with the instinctive singing of a bird” in *L’Allegro*, where Shakespeare is said to “Warble his native wood-notes wilde” (197). This ornithological analogy, equally prevalent in the Romantic era, highlights both biological and literary implications for Seward’s indictment. While Darwin discredits “instinctive singing” by arguing that birds observe and imitate an “artificial

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143 In *Burns’ Mrs. Riddell*, Angus Macnaghten relates that Robert Burns adopted this line from Milton as the motto of his self-created seal (Peterhead, Scotland: Voltorna, 1975), 44. In his famous poem of 1798, *The Unsex’d Females*, Richard Polwele portrays Ann Yearsley as a poet “who had warbled, Nature’s child, / Midst twilight dews, her minstrel ditties wild” (ll. 99-100). Wordsworth also played on this analogy when he called Byron “the Mocking Bird of our Parnassian Ornithology” (Quoted in Mazzeo, 44).
language,” so that “a [turkey] hen teaches this language with equal ease to…ducklings,”
and nightingales “never sing till they are instructed,” Seward counters by asking,
“Wherefore, since the ear of the feathered warbler is open to the immense variety of
strains, poured from the throat of birds of other plume, whence its invariable choice of
the family song?”144 Like “the feathered warbler,” a poet is exposed to the works of other
writers but, where there is originality, the instinctive genius adheres to his particular style
and keeps his poetic identity intact. This is consistent with Seward’s notion that
Darwin’s borrowing results in a hybrid text of internal incoherence due to his
unsuccessful incorporation of another’s “song.” Through what Seward construes as
Darwin’s denial of instinct, he undermines poetic identity and thus poets’ ability to claim
property in their works. Whether Darwin intentionally insinuated literary discourse into
his discussion of biological imitation, drawing a witty parallel between the two realms, is
unclear, but Seward’s singling out of concepts current to literary plagiarism to represent
her entire critique of Zoonomia clearly indicates her critical agenda whereby natural order
confirms poetic order.

**Smith and the Order of Poetics**

In her efforts to establish the taxonomizing authority behind literary criticism,
Seward’s main objective is to situate her verse in the order of poetics. Both the Memoirs
and her letters are filled with persistent attempts to teach readers to recognize her own
poetic style. This didactic training includes periodic disavowals of various poems falsely
imputed to her, emphasizing characteristics that should have precluded the possibility of
her authorship. In one instance, she distances herself from what she considered to be a

very poor poem, written by Darwin and to which he signed her initials (3:154). And Darwin continued to destabilize her poetic identity even from beyond the grave; following Seward’s death, the first poem to gain her nationwide acclaim, her *Elegy on Captain Cook* (1780), was rumored by Richard Lovell Edgeworth to be Darwin’s work. Darwin thus trespasses on her not only as a plagiarist, but also (for lack of a better term) as a reverse plagiarist, attributing some of his verses to her, and as the supposed author of some of her poetry. Several reviewers of the *Memoirs* admit the justice of Seward’s public reclamation of her verses from *The Botanic Garden*, and this acknowledgment is less expected, and her action more courageous, than modern audiences may suspect; for, “during the Romantic period, it was extremely rare for a male author to be persuasively charged with plagiarism from a female author” (Mazzeo, 49). After all, “if men could assimilate her person, then why could they not assimilate her personal expressions as well” (53)? Seward possessed a strong sense of independence—she never married—and her use of criticism to correct not only what she felt to be literary but also socio-political, moral, and scientific wrongs, manifests one way of compensating for this vulnerability of women’s verse and of “women” more generally. As a critic, she hoped her judgment would guide posterity in configuring the order of poetics and, as a poet, she hoped to find a place within that order. However, efforts to champion women’s education, and to expand their participation in literature, by no means ensured that she endorsed the works of her female peers. She wished works to be appreciated distinct

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from the author’s sex. Therefore, when the sonnets of her contemporary Charlotte Smith threatened both Seward’s place in the order of poetics and the order’s stability on a grander scale, Seward’s reaction was caustic.

As noted in my introduction, for many modern critics Seward’s attacks on the plagiarisms in Smith’s *Elegaic Sonnets* signify jealousy of Smith’s popular success. And Smith’s literary alliances with William Hayley (by whom Seward felt rejected) and William Cowper (who Seward viewed as egotistical and unpatriotic) undoubtedly distanced Smith from Seward’s critical favor. However, Seward’s literary naturalism provides further explanation, for Smith’s plagiarisms enact exactly the sort of disorder among poetic identities against which Seward most strongly protests in her critique of Darwin. According to Seward, Smith’s appropriations from other poets disfigure her *Elegiac Sonnets* so that they become monstrosities, “made up of hackneyed scraps of dismality, with which her memory furnished her from our various poets” (2:287). Seward further complains, “I do not find in her sonnets any original ideas, any vigour of thought, any striking imagery—but plagiarism, glaring and perpetual;—whole lines taken verbatim, and without acknowledgment from Shakespeare, Milton, Young, Pope, Gray, Collins, Mason, and Beattie” (2:223-24). How is the literary naturalist correctly to

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146 Seward desired this appreciation of merit distinct from sex in literary criticism as well as in works of literature. She reveled in the “cross-dressing” possibilities of literary criticism, sending several letters to *The Gentleman’s Magazine* under the pseudonym of “Benvolio” and advising readers, “be it remembered that souls are of no sex, and their effusions therefore may, at pleasure, assume a masculine or a feminine application,” *The Gentleman’s Magazine* 57 (August 9, 1787); also quoted in Margaret Ashmun, *The Singing Swan: An Account of Anna Seward and her Acquaintance with Dr. Johnson, Boswell, and Others of their Time* (New Haven: Yale Univ., 1931), 142.

identify and attribute a poem when it contains a “mosaic” of authorial styles?\textsuperscript{148}

Seward’s accusations against Smith rely upon the chaos and unimprovement she discerns occurring in \textit{Zoonomia}, whereby “the numberless divisions and subdivisions” of poets are not confined to their “separate spheres” and “los[e] their distinct natures in imitation.” In contestation of Seward’s charges, scholars such as Adela Pinch, Susan Wolfson, John M. Anderson, and Paula Backscheider posit alternative valuations of Smith’s plagiarisms, suggesting that when borrowings are written to be recognized and taken from familiar authors, their hybridity becomes something of more productive potential.\textsuperscript{149} Smith’s appropriations are thereby associated with a larger trend characterized by Robert Macfarlane as occurring in the works of numerous writers of the Romantic era who viewed literary predecessors “as a chorus, a multitude of past voices which added depth and definition to their own poetry.”\textsuperscript{150} Seward herself confirmed that “imitative traces, of one kind or other, can be found in all works of imagination” (2:183). Yet Seward’s complaints against Smith endure because this incorporation of the literary tradition through inclusion of other poets’ recognizable styles, of course, increases the risk of incoherence in the authorial voice and, from a critical standpoint, failure to unify the chorus into a single ventriloquization would leave Smith’s borrowings unimproved, producing to Seward’s ears a cacophony.

A poet’s stylistic coherence or incoherence, and the ease with which his or her style can be seamlessly appropriated vitally influenced placement in Seward’s order of


poetics. She delineated the hierarchizing effect of successful imitation, explaining that “when a great genius condescends to imitate a less, he always excels him; and then the authors, from whom he took, sink, eclipsed, into darkness, if not into total oblivion” (2:183). Interestingly, the obliterating result of “great” poets’ stylistic unity lends to the poetic order an air of natural competition for survival, and natural competition is an idea found in Darwin’s Zoonomia.151 This struggle for supremacy dramatizes Seward’s emphasis on ranking poets and identifying poetic styles; it also indicates that to be a great poet is to be a great imitator, and vice versa.

In the hierarchy of greater and lesser poets that earlier we saw more minutely systematized into classes, Seward wished to designate a definite classification for Smith. Her reaction to a review of Smith’s sonnets in The Gentleman’s Magazine is telling: “Smiled you not to see the reviewer…gravely pronouncing, that it is trifling praise for Mrs. Smith’s sonnets to pronounce them superior to Shakespeare’s and Milton’s? O! rare panegyrist!….these hedge-flowers to be preferred, by a critical dictator, to the roses and amaranths of the two first poets the world has produced!!!—It makes one sick” (1:162-3). If she does turn a little green, Seward offers only a derisive smile to what she sees as a complete contravention of poetic order. Seward included Shakespeare and Milton in the long list of poets poorly imitated by Smith and, precisely through insistence on her stylistic hybridity, characterized this rival as a lesser poet, not to be compared, and certainly not “preferred,” to “the two first poets the world has produced.” More importantly, since Seward’s first class of poets is arranged according to “those who are at the head of some particular branch in their science,” and the “particular branch” under discussion is the sonnet—a branch in which Seward herself claimed some dominion—

151 King-Hele, Erasmus Darwin, 300.
praise of Smith was especially galling. As we shall see, Seward endorsed Milton’s as the model of the legitimate sonnet, but her placement of Milton at the head of the epic suggests that she intentionally left an opening for supremacy in the sonnet, envisioning herself filling the void. Her relentless fixation on Smith’s stylistic hybridity constitutes an effort to label this competitor as a lesser poet, unworthy of heading the sonnet; and in the context of Seward’s order of poetics, Smith’s formal choices within the sonnet further secured this relegation.

**The Science of Sonneteering**

Seward’s literary naturalism reinforced her opposition to Smith in what Seward termed “the sonnet claim.” By “claiming” the sonnet, women writers not only located themselves within a masculine tradition, but also threatened to make what Daniel Robinson calls “a bold statement of intellectual and poetic superiority, an implicit act of self-canonization” (100). In the Preface to her 1799 collection of *Original Sonnets on Various Subjects*, Seward repeatedly refers to, or quotes references to, sonnets as a “species,” “order,” and examines a particular “specimen.” Her frequent employment of this (Linnaean) taxonomic terminology signals her concern for the classification of, and strict adherence to, this literary genre. She announces her devotion, with only nine exceptions, to the Miltonic model and declares this structure of sonnet alone legitimate. In so doing, Seward takes aim at Smith’s own Preface to her *Elegiac Sonnets*, in which Smith defends her variances from the sonnet form; Seward’s concern is thus for the corruption of the sonnet as a species.
For much of the eighteenth and well into the nineteenth century, natural historians stressed the discovery of new forms. In the Memoirs, Seward extols Darwin’s Botanic Garden, claiming that it “forms a new class in poetry….Nor is it only that this composition takes unbeaten ground, and forms an additional order in the fanes of the Muses, it forms that new order so brilliantly, that though it may have many imitators, it will probably never have an equal in it’s [sic] particular class.” The difference that prompts Seward here to praise Darwin while she condemns Smith lies in the effect of their separate literary experiments on Seward’s order of poetics. She emphasizes origins as well as originality; her notion of species existing “as they were in the beginning, are now, and ever shall be,” and as “confin[ed]…to their proper spheres,” extends to her conception of species of verse. As a “new class,” The Botanic Garden represents its own legitimate form which, though newly “discovered,” fits into its appropriate place of classification, as so many new discoveries of plant species fit within the Linnaean system: filling gaps, making connections more complete, and thus bringing the taxonomic structure closer to a natural order that would reflect divine design.

By designating Darwin’s poem as a new class, Seward is repaying a compliment in kind. Darwin had previously credited Seward with a new poetic form, describing her monodies as “Epic Elegies” (5:262). And William Hayley similarly identified the originality of her 1784 Louisa, writing, “if your friend Darwin adored you as the inventress of the epic elegy, he ought to renew his adorations to the inventress of the

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153 Seward, Memoirs, 178. In Nature’s Body, Schiebinger remarks that “though Anna Seward, a close friend and well-known poet, praised The Botanic Garden for establishing a new poetic form by adapting scientific discoveries to heroic verse, Darwin’s poetry was not new, nor was it esoteric or unusual. The eighteenth century abounded with didactic poems on raising hops, sugar cane, gardening and the like….“ 31. But regardless of the actual innovation of Darwin’s poetry, I am interested in Seward’s conviction that his poetry “forms a new class.”
Seward thus perceived herself as participating in this discovery of new forms that fill their legitimate spaces, constituting positive progress in the configuration of poetic order. She avoids aligning her poetic innovations with formal hybridity by instead emphasizing her works’ original quality. She sees Smith’s sonnets, on the other hand, not as a new discovery of an original form, but as a degenerative imitation of a species already in existence. In the Buffonian lexicon, *degeneration* is a catchword “implying a decline, weakening, and degradation of an original ancestral form” (Sloan, 135). Similarly, Seward underscored the possibility of degeneration in literature by presenting her collection as *Original Sonnets*, belonging to the lineage from the Petrarchan tradition through Milton, and thus antithetical to Smith’s self-identifyingly hybrid *Elegiac Sonnets*. Her disgust with Smith’s degenerative deviation is further elucidated by Seward’s treatment of a similar poetic violation in Southey’s *Thalaba*. Seward “protest[s]…against [Southey’s] frequent and licentious change of measure,” declaring that “the practice opens a door to much revel-rout, and confusion in poetry, blending its various orders till all distinction amongst them is lost” (6:92). The overlapping vocabularies she applies to zoological and poetic orders here are striking, particularly in her predictions of “confusion,” “blending,” and loss of “distinction.” In contrast, Seward presents the legitimate sonnet as distinct, situated in its designated place and closing gaps within the poetic taxonomy: “It is the intermediate style of poetry, between rhyme and blank verse” (2:226).

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155 Originality was of paramount concern to Seward in her writings. She explained, “I have always destroyed every little production of my own, if, on revising it, after the effervescence of composition had subsided, I could not find that it contained something original, either in the thoughts themselves, or in their combination” (5:378).
In Seward’s Preface, she defines the legitimate sonnet to obviate the classification of Smith’s poems as sonnets. According to Seward, Smith’s poems constitute “minute Elegies of twelve alternate rhimes, closing with a couplet, which assume the name of Sonnet without any other resemblance to that order of Verse, except their limitation to fourteen lines.” Further accentuating the unclassifiability of Smith’s works, Seward quotes an additional definition of the sonnet printed in *The Gentleman’s Magazine* in 1786, stipulating that “Little Elegies, consisting of four stanzas and a couplet, are no more Sonnets than they are Epic Poems” (iv). What exactly Smith’s “sonnets” are, then, remains undiscovered, unknown—and their lack of distinction (let alone of definition) presents an unwelcome challenge to the order of poetics. In Seward’s struggle for supremacy in the sonnet, she forces the question: if Smith’s poems are not sonnets, then how can Smith head this “branch [of] science”? To Seward, Smith’s formal and stylistic hybridity identified her as a lesser poet, and the widespread popularity and numerous imitations of Smith’s poems only revealed “the odd taste of the public,” doubtless adding urgency to Seward’s didactic efforts and to her faith in a more discerning posterity (2:287).

**Anticipating the Next (De)Generation**

Although Seward worked to establish the concreteness of poetic order, she herself has become a liminal figure within modern period divisions, and this liminality dramatizes the tensions bound up in Seward’s literary naturalism. In her efforts to preserve the order of poetics, and her place within it, Seward enacts conflicts central to

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contemporary, multi-layered discourses of classification through the competing objectives of fixity and dynamism. Her poetic order can appear conservative in its desire for fixity and easily recognizable and classifiable poetic identities, but where she is most seemingly conservative she is also most active in advocating authorial rights through the principles of style and literary property—rights that authors would further negotiate in both courts and literary criticism throughout the Romantic era. Seward’s emphasis on the importance of origins and originality participates in the developing ideology of “high” Romanticism, but she complicates this ideology when she regards stylistic and formal hybridity as degeneration. While Wordsworth would also defend the personal property of poetic style, he evaluated formal hybridity differently. By including the category of “composite orders” in his own poetic taxonomy of the 1815 “Essay, Supplementary to the Preface,” Wordsworth affirmed his era’s increasing comfort with the dynamism that remains strongly associated with the Romantic movement, and its imputation of originality to formal hybridity in such works as the Lyrical Ballads, Shelley’s lyrical dramas, and Smith’s Elegiac Sonnets. Although hybrid literary forms arguably reinforce even as they elide generic tradition, Seward anxiously predicted their potential for “revel-rout,” rather than positive progression, in literature. Her resistance to synthesizing these tensions in her literary naturalism denotes Seward’s proximity to, and also her displacement within, the Romantic-period values that have most influenced subsequent canon-making.

157 For further discussion of “composite orders,” see Stuart Curran, Poetic Form and British Romanticism (Oxford UP, 1986), 180-203.
Chapter 4

Charlotte Smith and the Poet-Naturalist’s Collective Originality

Anna Seward’s accusations of plagiarism against Charlotte Smith, explored in the previous chapter, dramatize the risk of Smith’s experimentation with poetical borrowings throughout her literary career. Although Smith strove to fulfill contemporary standards about plagiarism, she also had her own conception of how literary borrowings contributed to originality. Indeed, drawing on collaborative goals of natural history, Smith’s borrowings helped her to achieve what I term “collective originality,” as she employed other poets’ verses while also emphasizing her own literary autogeneity. In this chapter, I chart how Smith’s view of natural history as a means to literary authority and originality alters to her late doubts about science’s ability to fulfill that potential. Her efforts as a poet-naturalist ultimately lead to her devastating and surprising realization that versifications of nature, and not merely of art, could draw accusations of plagiarism. This revelation helps explain one of the reasons for women writers’ inability to sustain this literary movement merging science and literature. Additionally, understanding the ways in which Smith conjoins natural history and her era’s concern with originality provides an interesting rejoinder to personal accusations against her as a plagiarist, such as those leveled by Seward.

Smith, like Seward, wielded natural history as a weapon of literary criticism, and Seward’s attacks on Smith’s poetical plagiarisms gained Smith’s enmity in return. Several of Smith’s letters satirize Seward’s character and literary success and, in her most
scientific text, *The Natural History of Birds* (1807), Smith poignantly rejects both Seward’s claim to the title of poet and her charges of unoriginality.¹⁵⁸

With her poetic fame, Seward became widely known as the “Swan of Lichfield,” a sobriquet in the tradition of Pope, “the sweet swan of Twickenham.”¹⁵⁹ Seward prided herself on this ornithological identification, which Smith consciously undermines in her study of birds. Deeming the classificatory “order” to which the swan belongs “not so very interesting,” Smith jeers that the swan “has been called the emblem of the poets. I know not why, as Wild Swans are gregarious, that is, they assemble in flocks, and the poet is not, I think, a very sociable animal” (1:91). Smith’s unequivocal separation of poetic identity from sociability supports the Romantic-era shift redefining what constitutes poetic character. She associates the “gregarious” swan with then-outdated poetic circles popular in the 1770s and ‘80s, such as the Batheaston Circle to which Seward prominently belonged and within which aspiring poets “assemble[d] in flocks” and received derision from the London critics.¹⁶⁰ The idiom of sociable poetry focused on the collective and inclusive, as well as sentimental and social virtues of friendship and benevolence, but did so in a poetics that the succeeding generation viewed as, in Wordsworth’s words, “gaudiness and inane phraseology.” Exemplifying Romantic-era views of this genre of verse, one of Felicia Hemans’s “favourite quotations was the satire on the Lichfield coterie [which centered on William Hayley and Seward], which she would repeat with exquisite humour: ‘Tuneful poet! England’s glory, / Mr. Hayley – that

¹⁵⁹ Shakespeare also was known as “the swan of Avon.” See Norma Clarke, “Anna Seward: Swan, Duckling or Goose?” in *British Women’s Writing in the Long Eighteenth Century*. Eds. Jennie Batchelor and Cora Kaplan (New York: Palgrave, 2005) 34.
is you.’ / ‘Ma’am, you carry all before you, / Trust me, Lichfield swan, you do!’”

For Hemans’s generation, sociable poetry thus could appear paradoxically and laughably solipsistic, and outdated with regard to literary taste. Indeed, the swan’s association with Pope only accentuates Smith’s underlying hint that Seward’s sociable verse, like that of Pope and the Augustans, is antiquated. Smith further scoffs at the Leda myth’s assimilation of the swan “with infinite power” and clarifies that although “the ancients supposed, that the swan…sung most melodiously just before its death,” this bird “makes only a sort of snorting noise now and then at particular seasons” (1:95-6). By denying Seward divine inspiration and converting this poet’s “song” into a ludicrous “snorting noise now and then,” Smith takes a pithy and only mildly-veiled public vengeance on Lichfield’s Swan.

Smith contrasts this Sewardian, sociable, and woefully unpoetic description of the swan with that of the nightingale. According to her, the nightingale “is the most known and admired of all the songsters, and is celebrated by the poets more than any other of the feathered race”; further, it is “a solitary bird, and though it really sings all day, is usually celebrated for it’s [sic] song during the night; when from a thorn or low shrub in the hedgerows it is heard to peculiar advantage, as the rest of the feathered choristers are silent, and the note is sweeter and more varied than that of any other bird” (2:80-1). Even as Smith alludes to the long literary tradition associating the poet and the nightingale, her emphasis on the bird’s solitary retreat, and range of originality more directly locates this feathered songster in the contemporary movement of poetry that we now call Romanticism. She clearly identifies herself with the nightingale, signifying a break from the swan’s collective and ineffective sociable poetry to place herself at the center of a

\footnote{Chorley, 1: 236.}
more authentic literary tradition that influences and legitimates this new movement. Smith gained fame for her sorrowfully-themed *Elegiac Sonnets* (1784), which Seward dubbed “everlasting lamentables”\(^{162}\); thus, when Smith explains that “the voice of the Nightingale is considered generally as expressive of melancholy” and exemplifies the bird’s depiction with two of her own sonnets, followed by Wordsworth’s lines on the nightingale from *Lyrical Ballads*, she aligns herself with this new standard of poetry, a standard that Wordsworth granted she was instrumental in establishing.\(^{163}\) Despite Seward’s accusations that Smith’s poems were “full of notorious plagiarisms, barren of original ideas,” Smith was in fact acutely concerned with literary originality, especially in verse.\(^{164}\) Considering her poetry to be her most serious and lasting artistic achievement, she participated in debates over the conventions of her craft and wrote verse that helped determine her era’s changing perception of those conventions.\(^{165}\) Moreover, Smith’s thinking about literature was, in many ways, crucially shaped by her preoccupation with the natural sciences.

The few literary critics to address Romantic-era women writers’ engagements with natural history gravitate to the works of Charlotte Smith with good reason.\(^{166}\) In her


\(^{163}\) Birds 2:94-6. I refer to Wordsworth’s now well-known remark that Smith was a poet “to whom English verse is under greater obligations than are likely to be either acknowledged or remembered,” quoted in the Introduction of Stuart Curran’s edition of *The Poems of Charlotte Smith* (New York: Oxford UP, 1993) xix.


verse, Smith oscillates between precision and poetics, between asserting erudite
knowledge of species’ scientific and common (or vernacular) names, usually providing
the missing appellation in an endnote. Filled with expansive details of the physical
descriptions, locations, and her personal observations of biological species, Smith’s notes
often engage the assertions of the most prominent male naturalists of her day. My own
analysis focuses primarily on three of Smith’s later texts: Conversations Introducing
Poetry: Chiefly on Subjects of Natural History (1804), The Natural History of Birds
(1807), and Beachy Head, Fables, and Other Poems (1807). I argue that Smith’s
contrasting depictions of the nightingale and the swan enact an ideological tension
permeating her own works. Smith’s insistence on portraying the poet as “solitary,” as
“not…a very sociable animal” participates in a Romantic ideal of autonomy that she
simultaneously undermines through her network of poetical borrowings and the notes to
her poetry. Although she does not practice the brand of sociability associated with
Seward, I argue that Smith’s poetry produces an originality that is paradoxically
collective and thus complexly interrogative of the trope of solitary genius. In this mode
of “collective originality,” Smith strategically conjoins the collaborative mindset of
natural history with the concept of individualism in her poetry in a way that productively
exploits untenable claims to isolation typical of Romantic-era poetic personae.

Beachy Head,” European Romantic Review 13 (2002): 77-93; Kandi Tayebi, “Undermining the Eighteenth-
Century Pastoral: Rewriting the Poet’s Relationship to Nature in Charlotte Smith’s Poetry,” European
Romantic Review 15.1 (March 2004): 131-50; Elizabeth Heckendorn Cook, “Charlotte Smith and ‘The
The Poet-Naturalist

When Charlotte Smith added endnotes to her 1786 third edition of *Elegiac Sonnets*, “restor[ing],” as she wrote in her Preface, “borrowed” lines and ideas “to the original possessors,” including Shakespeare, Milton, Pope, and Gray, in reaction to accusations of plagiarism, she also displayed, for the first time in poetry, her knowledge of natural history. These notes provide, for instance, the Latin and full common name of the Wood Anemone referenced in Sonnet II, and an extended description of the plant, Clematis, referenced in Sonnet XXX, where Smith details the plant’s physical traits contributing to the acquirement of its several common names. Her use of scientific notes to accompany her poetry has often been attributed by literary critics to the influence of Erasmus Darwin’s *The Botanic Garden*. But while Smith certainly later delighted in Darwin’s works, her noted edition predates Darwin’s publication of *The Loves of the Plants* (1789) by three years. Thus, there is perhaps more reason to claim Smith’s influence on Darwin rather than the other way around. At the same time, Smith’s scientific notes contribute to a tradition already in place. As M.M. Mahood explains, “The ‘Poet of the Botanists’, John Scott of Amwell…was in fact only one of a number of poets who began from the 1770s onwards to pack their verses with the names of wild flowers,” each accorded its footnoted Latin binomial and, often, expanded commentary – “This practice fitted in easily with the Augustan poetic; readers expected poets to be informative, as Horace had advocated, and Virgil exemplified in his *Georgics.*”

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167 It would perhaps be possible to argue that a poem like Sonnet VII, which alludes to the nightingale’s migration, displays an earlier assertion of knowledge of natural history, but with the addition of her notes, Smith’s expression of her scientific knowledge became much more erudite.

168 See, for instance, Pascoe, 199-202.

169 Smith quotes the *Botanic Garden* on numerous occasions and in a letter to her publishers on August 27, 1799, she praises it as “one of my favorite books” (Smith, *Letters*, 332).

Smith’s gender made scientific notes displaying her knowledge and personal observations in the various disciplines of natural history less expected, even as the practice became increasingly prominent in her poetry.\footnote{Jacqueline Labbe, “‘Transplanted into a more congenial soil’: Footnoting the Self in the Poetry of Charlotte Smith” in Ma(r)king the Text: The Presentation of Meaning on the Literary Page. Eds. Bray, Handley, and Henry (Burlington, VT: Ashgate, 2000) 72-3.  Sam George, Botany, Sexuality and Women’s Writing 1760-1830: From Modest Shoot to Forward Plant (New York: Manchester UP, 2007) 124.}

In Smith’s use of natural history, a more promising initial influence than Darwin is John Aikin, who proposed melding science and poetry to help combat literary plagiarism.\footnote{Although Smith’s letters show that she requests Aikin’s text from her publishers in 1796, it is likely that she had read it earlier.} Inveighing against poetic unoriginality as an “invidious” and “discouraging” practice, Aikin’s Essay on the Application of Natural History to Poetry (1777) acknowledges that “[n]o literary complaint is more frequent and general than that of the insipidity of Modern Poetry” (1). The problem, according to Aikin, is that “descriptive poetry has degenerated into a kind of phraseology, consisting of combinations of words which have been so long coupled together, that…they are become inseparable companions” so that “Even in poets of a higher order, the hand of a copyist may be traced much oftener than the strokes of an observer” (5-6). In addition to this verbatim borrowing of descriptive phrases, for Aikin, poets’ depictions of natural objects are too often “mistaken,” “cursory and general,” and devoid of the objects’ “minuter distinctions and mutual relations” so that “While the votary of science is continually gratified with new objects opening to his view, the lover of poetry is wearied and disgusted with a perpetual repetition of the same images, clad in almost the same language” (10, 1-2). For him, the solution is clear – poetic unoriginality “is only to be rectified by accurate and attentive observation, conducted upon somewhat of a scientific
plan” (10). He illuminates this plan by critiquing various examples of natural-historical inaccuracies in both ancient and modern poetry with guidance on how to avoid such “servile imitation,” especially pointing poets to subjects of scientific inquiry that remain unexplored, controversial, and thus most readily capable of producing novel effects in poetry (such as bird migration, the manner in which young birds practice their songs, and descriptions of exotic nations and their indigenous species). By directing poets to uninvestigated aspects of nature, he unites the prevention of plagiarism to the goal of inspiring “fellow-labourer[s]” in the “interesting researches into British Zoology” (v). For Aikin, the original poet must also be a naturalist, and this view resonated with Charlotte Smith.

Smith embraced the unique possibilities promised by poetic engagement with natural history. In a note to her poem, Beachy Head, she cites Aikin’s disapproval of “how many of our best poets have noticed,” (that is, overused,) “the same circumstance, the hum of the Dor Beetle (Scaraboeus stercorarius) among the sounds heard by the evening wanderer.”173 Yet, she separates herself from his comparisons of these poetical plagiarisms in Shakespeare, Milton, Gray, and Collins through expression of her own poetic originality, declaring, “I remember only one [other] instance in which the more remarkable, though by no means uncommon noise of the Fern Owl, or Goatsucker, is mentioned,” and we learn that this singular reference to the species is located in an earlier sonnet by none other than Smith herself, seemingly making her the only poet to have recorded this phenomenon. Beyond highlighting her originality, Smith’s delineation of the species Latin name, that of its prey, the adept function of its physical structure, and the folk lore associated with the species, set her apart as a poet-naturalist in the manner

173 Curran 239; Smith, Letters, 218.
encouraged by Aikin, capable of infusing her verse with natural-historical knowledge and novelty.

Expanding the catalogue of poetic errors documented in Aikin’s essay, Smith establishes her authority in part by correcting inaccurate observations of natural objects in the poetry of others. In *Beachy Head*, she adjusts Shakespeare’s description of “the Cuckoo buds as being yellow. He probably meant the numerous Ranunculi, or March marigolds (*Caltha palustris*) which so gild the meadows in Spring; *but poets have never been botanists*” (242; latter emphasis mine). Smith’s clearly ironic denial of poets’ knowledge of natural history seeks to mitigate her critique of this male literary legend while showing off her own expert botanical knowledge. She promotes knowledge of science as requisite for writing poetry in her *Natural History of Birds*, stating definitively that “The philosopher and poet should both be naturalists” (I:4). In further corrections, although Smith dubs Thomson “The poet, who perhaps of all that wrote after Milton has most accurately described nature,” she redresses his claim that nightingales sing only at night.\(^{174}\) Thomson represented the poet-naturalist *par excellence* of the first half of the eighteenth century, yet even while Smith admires his “beautiful lines on the birds,” she stresses that his ornithological “description does not of course enumerate the varieties of the different species of birds. Of thrushes, for example, there are four or five sorts.”\(^{175}\) She thus displays that even this “very correct” poet of nature lacks her level of scientific acumen, suggesting her own supremacy as poet-naturalist (RW II:81). And poets are hardly alone in drawing her natural-historical critique.

\(^{174}\) Birds II: 91-3.

\(^{175}\) Rural Walks II:81.
Smith knew that natural processes not yet fully understood by naturalists imparted the greatest poetic novelty. Aikin’s recommendation of bird migration, for instance, as a poetic subject invests the poet with unrivaled importance and capability, and he writes that “[t]he knowledge, indeed, requisite for treating this subject in a masterly manner, would be superior to that of the professed naturalist; since this branch of his researches is yet in its infancy….the poet should think it incumbent upon him to discover and investigate new facts, as well as to frame new combinations of words” (132). Aikin’s poet-naturalists must thus become better, more knowledgeable naturalists than the naturalists themselves. Just so, Smith’s notes substantially evidence her “superior” knowledge and investigations into “new facts” enabling her to correct famous naturalists, such as Linnaeus and Gilbert White. Actively verifying the claims of “professed naturalist[s],” she declares that “Last summer I was particularly attentive to” White’s assertion that the chirping of the Grasshopper Lark does indeed come from the bird and not the insect, though many people believe the contrary, and Smith affirms she is “convinced….I have no doubt, but that Mr. White is perfectly correct.”176 Her poem, “Ode to the Missel Thrush,” on the other hand, seems to have been written specifically for the opportunity to refute White’s statement that the thrush ceases to sing “before Midsummer,” which Smith argues “is certainly an error,” and offers proof through personal observation: “now I hear him uttering a more clamorous song, the 8th of July, between the flying showers” (200). In a note regarding the plant, the Fly Orchis, she further suggests that Linnaeus erroneously “esteemed all those [plants] which resemble insects, as forming only one species, which he terms Ophrys insectifera,” and cites James Edward Smith’s English Botany for support (236). Smith even subjects herself to

176 Birds II:45.
correction, admitting fault in her reference to the Fern Owl in her forty-second sonnet, explaining, “I was mistaken in supposing it as visible in November.”\textsuperscript{177} In the Romantic era, scientific texts were often considered to be divorced from an authorial personality and thus easily appropriated, but documentation, citation, and accountability became obsessively characteristic of Smith’s engagements with science and poetry in reaction to accusations of poetical plagiarisms.\textsuperscript{178}

Indeed, in Smith’s endnoted documentation, natural history and poetical history often become inseparable and indistinguishable. In her long note to “Sonnet LXXVII: To the Insect of Gossamer,” Smith quotes the late seventeenth-century naturalist, Martin Lister, who studied spiders’ ability to “convey themselves” through the air on their floating threads, and she uses poetry to substantiate his scientific remarks, citing verses by Erasmus Darwin and from Shakespeare’s \textit{Romeo and Juliet}, with the latter describing Juliet as a lover who “may bestride the Gossamer / That idles in the wanton Summer air, / And yet not fall – .”\textsuperscript{179} Equating poetic and scientific authority, Smith allows the natural object to float easily between these interchanging modes of thought.

\textbf{The Poet-Naturalist and the Collector}

In one of her texts for children, Smith’s methodological overlapping between poets and naturalists achieves radical realism. Her first three children’s works, \textit{Rural Walks} (1795), \textit{Rambles Farther} (1796), and \textit{Minor Morals} (1798), each address natural

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\textsuperscript{177} Curran 239. Smith’s further dispelling of general misconceptions can be seen, for instance, when she assures that the newt, though often “supposed to be venomous,” is “perfectly harmless” (Curran 302).
\textsuperscript{179} Curran 66.
history and include passages of poetry; but it is in her fourth educational text, *Conversations Introducing Poetry: Chiefly on Subjects of Natural History* (1804), that Smith most thoroughly discusses how to combine poetry and science. Here, the characters, Mrs. Talbot and her children, George and Emily, meld scientific and poetic pursuits to create a collection of natural history poems. Importantly, this imaginative collection signifies a benevolent alternative to collecting physical specimens of those animals, birds, insects, and flowers described in verse, so that when the children wish to keep an insect, the green-chafer, that their mother helped them identify, Mrs. Talbot replies, “Instead...of contriving the captivity of the chafer, let us address a little poem to it” (I:4). In a like manner, when George brings home a hedgehog, his mother proposes, “we will try if something cannot be made of it, to encrease [sic] our collection of animals, as subjects of natural history in verse” (I:46). And Emily later complains of deficits in her collection, stating, “Mama, I have now several little copies of verses on insects, and some on plants: I have the squirrel too, the dormouse, and the hedgehog, which are beasts, but we have none that tell of birds,” to which Mrs. Talbot responds, “I have a bird or two hatching for you” (I:149, 179). In each case, possession of verses about the natural object stands in for, and even becomes equivalent to, possession of the object itself (“I have the squirrel too”). However, this collection of poems interchanging poetical subjects and natural objects is not entirely by Charlotte Smith and, while Dahlia Porter suggests that Smith’s inclusion of other poets’ works participates in the contemporary fashion for compiling pedagogical collections for young readers, there are more complicated issues of borrowing at stake.\(^\text{180}\)

Mrs. Talbot frequently remarks upon the difficulty of achieving poetic originality when addressing natural objects versified by so many others before. Prior to producing her verses “To the Early Butterfly,” for example, Mrs. Talbot tells her son, “It is difficult, George, to say anything that is not mere commonplace on so obvious and hackneyed a subject” (I:52); similarly, preceding her poem, “The Moth,” she disclaims, “Like verses on the butterfly, any attempt on the subject of the moth may perhaps be trite,” and, again, “It would…be difficult to find anything new to say of that most charming of our feathered musicians [the nightingale]” (I:56, II:60). Smith’s struggle for ingenuity in verses about natural objects of this kind leads her to commit potential poetic plagiarisms.

Expressing concern about her numerous borrowings, Smith’s Preface to Conversations reveals that five poems are hers while seven are taken from other writers: “I suffered some borrowed and altered pieces to remain, which I should have taken out, had I known that I need not have retained them for want of a sufficient number of original compositions,” but “as my trespass on others has not been great, I trust it will be forgiven me” (II:ii). This “borrow[ing]” and “alter[ing]” can be seen when Mrs. Talbot acknowledges of her poem, “Violets,” that it “is not altogether my own. Indeed, some of the lines are entirely taken from a little poem, I believe written by [William] Gifford, and I adapted them to my purpose” (I:96). Smith’s earlier statement that the violet “needs no note, it being…in constant requisition by the poets” helps explain her

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181 The text also includes a number of poems by Smith’s “near relation,” her sister, Catherine Dorset, with whom in 1797 Smith considered collaborating to write a botanical textbook, see Elizabeth A. Dolan, Seeing Suffering in Women’s Literature of the Romantic Era (Burlington, VT: Ashgate, 2008) 101.
use of another’s poem on this over-versified subject since complete originality appears unattainable and she finds in Gifford’s work “kindred sentiments and states of mind.”¹⁸²

As discussed in the previous chapter, in the Romantic period, plagiarisms could be divided into two critical categories. Culpable plagiarism, which represented a moral indictment, required that borrowings be simultaneously unacknowledged, unimproved, unfamiliar, and conscious, while the more common charge of poetical plagiarism indicated an aesthetic (not moral) trespass of one or more of these four elements of plagiarism.¹⁸³ Imitation did not necessarily preclude originality in this era, and since Smith determines that “improvement” to Gifford’s poem is possible, she removes stanzas, changes words, and engrafts lines of her own with the goal of asserting something “new” (I:12). For Smith, the claims of poets, like those of naturalists, are subject to revision, and she readily acknowledges her changes even where she seems unsure of the tenability of her improvements, as when she writes of her adjustments to Cowper’s “The Cricket,” “tho’ it is something like sacrilege to change a word of his, you will see I have made a few alterations” (I:179). At this time, improvement was a largely subjective critical judgment. While unsuccessful improvement results in stylistic hybridity or monstrosity, successful improvement seamlessly unifies the two poets’ “voices” in poetic ventriloquism and justifies any borrowing. In addition to her efforts to comply with contemporary critical standards of plagiarism, Smith implies that her borrowings make good, and even ethical, sense within the context of her collection of natural history poems.

¹⁸² Curran 107; Backscheider, Eighteenth-Century Women Poets, 336.
¹⁸³ Mazzeo 2-5.
When Mrs. Talbot and her children discuss the life-stages of a butterfly the conversation shifts to the attainment of actual specimens for closer inspection. Mrs. Talbot declares that in her youth, “I was soon disgusted with the attempt to kill them. It appeared so cruel, to impale an insect on a pin, and let it flutter for hours and even days in misery, that I could never bear to do it” (I:51). She expounds that “insects taken for the collections of the curious, must probably have resigned their short lives in some degree of suffering, which nature would not have inflicted” (II: 65). Due to the “suffering” they “inflct,” collectors of actual specimens (rather than poems) thus become the object of some disgust, as their curiosity devolves into “cruel[t]y” through greater desire for possession of the object itself than for the knowledge available through study of the living organism.\(^\text{184}\) In fact, it becomes impossible to attain a valid idea of an organism from a collector’s inanimate specimen, for, “The birds, or insects, or quadrupeds, though they may be very well preserved, lose that spirit and brilliancy, which living objects only can possess”; and “their formal or awkward appearances, when stuffed and set on wires, always convey to my mind ideas of the sufferings of the poor birds when they were caught and killed, and the disagreeable operations of emboweling and drying them” (II: 64, 65). Smith’s vivid portrayal of brutal and unfeeling taxidermical practices that put living beings on a trajectory of being “killed,” “embowel[ed,] and dr[ied]” emphasizes the moral appeal of collecting poems instead. Smith further conveys the distortions undergone by collected objects and the resulting detriments to scientific observation in her poem, “To the fire-fly of Jamaica, seen in a collection,” where she laments that the fire-fly’s “faded form” displayed in the collector’s

\(^\text{184}\) When it comes to the collection of biological specimens, only collections of plants escape Smith’s censure. For more on natural history collecting in the Romantic era, see Judith Pascoe, *The Hummingbird Cabinet: A Rare and Curious History of Romantic Collectors* (Ithaca, NY: Cornell UP, 2006).
glass case ensures, “Never Naturalist shall…see thee…with transient gleams to glow.” In contrast to the collector, the naturalist delights in the living habits of organisms, though a few captives must be made in the name of science, so that Smith says of a bird in a sonnet’s note, “As I have not seen it dead, I know not to what species it belongs” (41). Still, when an animal, bird, or insect has already been “captured” by another, Smith implies that to then capture it yourself is only cruel. Thus, instead of inflicting the “sufferings” consequent to “impal[ing] an insect on a pin,” she states, “I contented myself with copying from…collections already made” (I:51).

Smith’s literal use of “copying,” of course, refers to drawing the collected specimens, but her pervasive concerns about “copying” the works of other poets, and interchanging natural objects and poetic subjects, indicates the term’s applicability to her understanding of “forgive[able]” plagiarisms. By retaining natural objects’ vitality in the sense of recording their living descriptions and behaviors, the Talbots’ poetical collection is antithetical to the collector’s case. Indeed, through emphasis on “copying” as a benevolent and life-conserving practice, it would seem that within the poetical collection, the only threat of “suffering” lies in over-versification. There is an equation of actual animal suffering with putting that natural object too often into verse, as if there is something torturous to the specimen in “doing the subject to death.” There is no point in writing a poem on a natural-historical subject that has already been “captured” by other poets, leaving no hope of originality or improvement. In such cases, Smith simply directs the reader to the work of another author, as when she writes of the many poems about the bird, the cuckoo, that “none seem to me more simply descriptive than one by [John] Logan, which, as it is so very common, and appears in all collections, I will not insert
here. It is inserted in ‘Poetry for Children’, a compilation with some original pieces by miss Lucy Aikin (Phillips, Bridge-Street)” (Birds I:79).

However, where improvement is possible, Smith “coped” the versified subject from another, adding her own observations and improvements to create something new. She thus presents her work as more original than unaltered collecting and as more humane than ignoring the standards of plagiarism to result only in poetic “overkill.” She produces, in other words, not merely a collection, but something that exemplifies what I term “collective originality.” While this phrase intentionally puns on Smith’s collection of poetic as natural specimens in Conversations, I more broadly intend the connotation of “collective” as something relating to or proceeding from an aggregate of individuals. In her poems, Smith incorporates others’ poetic and natural-historical assertions in such a way as to make them her own, and therefore new. She thus conjoins the collaborative mindset of natural history with critical standards of Romantic-era originality. Qualifying Aikin’s proscription against copying other poets’ verses, Smith’s improvements ensure the vibrancy and vitality of both the poetic subject and the natural object. By acknowledging the origins of her borrowings Smith helps to justify her poetic plagiarisms even as these acknowledgments also jeopardize the stylistic seamlessness of her improvements and expose her poems to accusations of hybrid monstrosity.

(Non)Hybridities

Smith’s interchange of poetic subjects and natural objects raises the question of whether she considered her verse borrowings, as well as her formal integrations (e.g., Elegiac Sonnets), to be literary hybrids or something more original. Importantly,
however, Smith’s notes and educational texts disparage the contemporary fashion for producing artificial varieties or biological hybrids, especially in plants and birds. In the biological lexicon, hybrids between different varieties within a species are what we now call intra-specific hybrids, while those between different species within the same genus are usually now called interspecific hybrids, and the offspring of an interspecific cross are frequently sterile, such as mules. Eighteenth-century naturalists often view these sterile productions of true hybrids, or “mules,” as monstrous, and denigrate artificial varieties, although the hybrids resulting from these latter crosses are more often fertile. Devaluing such hybrids or variations in flowers, the Linnaean botanist William Withering wrote that “desirable as these changes are to the Florist, they have little weight with the Botanist who considers them as variable accidental circumstances, and, therefore, by no means admissible in the discrimination of the species.” Oliver Goldsmith, interpreting Buffon and addressing similar practices within ornithology, indicates more substantial taxonomic influence for these artificial varieties: “pigeon-fanciers, by coupling a male and female of different sorts, can breed them, as they express it, to a feather. From hence we have the various names of Croppers, Carriers, Jacobines, Powters, Runts, and Turbits: all birds that at first might have accidentally varied from the stock-dove; and then, by having these varieties still heightened by food, climate and pairing, different species have been produced.” The naturalist John Walker similarly admits breeders’ ability to produce hybrids that constitute new species, but points to the limits of such productions:

Varieties may have been obtained with a mixture of different species of the same genus; but this is not more a departure from nature, than what may be found in the

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185 William Withering, *An Arrangement of British Plants*, 7. For more on botanists’ views of hybrids and varieties, see Sam George, 153-65.
forest or the field, in the casual variation of colour, in the plumes of birds, and the petals of flowers: our pigeon and canary-bird fanciers avail themselves of the variety of those species, to form commixtures of colours; as doth the florist in his gaudy department, yet they have not been able to produce a specific genus. ¹⁸⁷

Smith herself strongly protests against the bird breeders or bird-fanciers who produce hybrids, “the most extraordinary specimens of the power of art over nature” that are of no use or “real benefit to mankind,” and she turns the critique into a personal attack, claiming that “What is called a Fancier, whether in flowers or birds, is always a trifling and subordinate character. Such men are only full-grown children, and it is well if their folly be not attended with serious consequences to them” (Birds, II:29). Smith describes one such variety of birds produced to meet the Fanciers’ “standard of imaginary perfection”: “A Pouter is a bird of which the crop is capable of being so much distended with wind, that the animal appears to be without a head,” and she scorns the creators of such monstrosities, “These [bird-]Fanciers are to Ornithologists, what Flower Fanciers are to Botanists” (260). Clearly, for Smith, the work of fanciers is far inferior to that of naturalists, and the fanciers’ production of varieties such as the Pouter “has excited [only] laughter and contempt” (303).

Smith’s distrust of species transformations accords with her adoption of Linnaean taxonomies and Linnaeus’s early disregard for species alterations through hybridity; he wrote that “the number of species is constant” and “We count so many species as there were in the beginning.”¹⁸⁸ Smith conceives of changes in the earth’s distribution of populations, as when she references the extinctions of the walrus and a species of bird in

¹⁸⁷ John Walker, Elements of Geography. 3rd Edition. (Dublin, 1797, 1788) 125.
Scotland, of wolves in Britain, and describes “elephant” remains found in England as well as in North America, along with those of the “rhinoceros and hippopotamus” (“though it is certain that [the elephant] is never seen in its natural state, but in the countries under the torrid zone of the old world”), and even predicts “the extirpation of the whole people [of Polynesia, particularly Tahiti].”\(^{189}\) However, these shifts in population remain consistent with species fixity as propounded, not only by Linnaeus, but also by the leading proponent of theories of extinction, Georges Cuvier. For Smith, although fanciers may produce varieties of species, each species fills its own connective place as an indelible “link” in nature so that, for instance, the Fern Owl “is a link between the Swallow and those birds that prey indiscriminately on smaller birds, insects, and reptiles,” thus supporting the notion of an orderly, systematic configuration of species.\(^{190}\)

Her “contempt” for the production of hybrid living forms suggests that Smith would not have desired her literary production of poetical forms to be understood as representations of hybridity. Biological hybrids’ reputed inability to reproduce prompted Edward Young to make the literary analogy that “an Original author is born of himself, is his own progenitor, and will probably propagate a numerous offspring of Imitators, to eternize his glory; while mule-like Imitators, die without issue.”\(^{191}\) In a way not dissimilar to Seward’s thinking about her poetical novel and epic elegies, Smith likely subordinated the idea of hybridity to consider her production of *Elegiac Sonnets* instead as something “new” – an original, newly discovered, “species of poetry,” capable of

\(^{189}\) Curran 294, Birds II:21, Rural Walks 147, Curran 234, Curran 245.

\(^{190}\) Birds II: 118. Sounding like a modern environmentalist, and retaining this notion of “link[s]” between species, Smith additionally points out interdependencies that keep ecologies in a delicate balance and that humans can only disrupt with dire consequences, as when she relates that a species of bird was exterminated in a particular area, allowing a kind of caterpillar to reproduce unchecked and thus wreak destruction on local crops (Birds I:68-9).

\(^{191}\) Edward Young, *Conjectures on Original Composition* (1759) 68.
filling its place in the poetic order. This resonates with contemporary poetical
taxonomies such as those put forth by John Newbery (*The Art of Poetry*, 1762), and Hugh
Blair (*Lectures on Rhetoric and Belles Lettres*, 1783). As has been argued by Jacqueline
Labbe, although Newbery and Blair each emphasize “the need to differentiate styles and
modes of poetry,” they also recognize “that these boundaries are permeable” and
necessitate the creation of new categories for new “species of poetry.” The constant
need to create new categories in taxonomies both of literature and of nature to
accommodate these newly discovered forms or species indicates the very incompleteness
of those orders. Thus, while the production of hybrids may evoke her “laughter,” Smith’s
literature more seriously highlights the gaps and fissures in contemporary knowledge and
constructions of the natural order.

**Mysteries and Scientific Collaboration**

Teased once by Erasmus Darwin for publishing a poem containing scientific
errors, Smith was cautiously aware of shortcomings in her knowledge of natural history,
but also recognized that her personal uncertainties reflected the need for greater advances
in scientific information more generally. She states in the Preface to *Conversations*, “I
fear I have made some mistakes, particularly in regard to the nature of Zoophytes; but the
accounts of this branch of natural history in the few books I have, are so confused and
incompletat [sic], that I could not rectify the errors I suspected” (II:v). By zoophyte,
Smith refers to “that link in the chain which unites the animal and vegetable kingdoms,”
such as corals (II:16). Although zoophytes are not hybrids and compose distinct species,

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Smith draws attention to their elusion of reliable scientific account, allowing her to confront such mysteries poetically and accentuate contrasts between the known and the unknown in nature.

As Coleridge would emphasize thirteen years later in his appended motto to *Rime of the Ancient Mariner*, the sea offers a particularly apt setting for discussion of the unknown; with pseudo-scientific reference to taxonomical constructions, his quote from Thomas Burnet asks of the supernatural, “invisible…things of the universe” – “who shall describe for us their families, their rank, relationships, distinguishing features and function?” In *Conversations*, Smith uses the sea as a means of pointing to natural liminalities lacking categorization within the order of nature. Her poem “Studies by the sea” presents the ocean as a force that “Tears down its bounds” and displays “innumerous changes,” harboring “endless swarms of creatures” in “unfathom’d waves.” And she more closely explores the sea’s borderlands and borderlives, such as zoophytes, that straddle different kingdoms of nature, in the final poem of *Conversations*, “Flora.” Describing the poem as a revision of Darwin’s “The Loves of the Plants,” which she admires and defends in its propriety, Smith claims that her “Flora” acclimates young women to Darwin’s poetic structure and didactic style. However, in its second half, Smith’s poem creates a separate agenda through its dealings with the sea. Preparing the reader to view the sea as a location of indefiniteness, Mrs. Talbot states that “vegetation, over which Flora may poetically be said to preside, is extended even to the rocks and caverns under the sea, where great numbers of plants of the class cryptogamia grow,” thus referencing a class of plants in which the organs of fructification are too small to be

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194 Coleridge first included the *Rime*’s motto and marginalia in his 1817 publication of *Sibylline Leaves*.
seen, making classification through usual Linnaean methods difficult, if not impossible (II:171).

The trajectory of “Flora” traces a path from the garden, into “wild uncultured,” and, finally, “unknown” scenes, thereby also moving away from the location, form, and ideology set forth in Darwin’s scientifically assured “The Loves of the Plants,” where his poetic illumination of Linnaean botany unfolds a fairy world of plant sexuality, undergirded by informative footnotes. Although species common names are typically richer in poetic association, Darwin employs the scientific names of plants and insects in his verse; Smith, on the other hand, constantly wavers between Linnaean and common names, nearly always supplying a note for the missing appellation. Additionally, in her notes, Smith cites borrowings from scientific authorities as well as poets, including William Cowper and James Thomson. Thus, whereas Darwin argues that notes should be reserved for exact, scientific information, Smith’s citations of other poets’ verse and her oscillation between common and Latin names fracture his line between scientific prose and descriptive poetry [cf. Barbauld chapter].

In the third to last stanza of “Flora,” no longer occupying the contained, sexualized, feminized space of the garden, Smith journeys to the bold vantage of a cliff’s summit—a location that clashes with feminine propriety. In prospect poems “the summit” conventionally denotes the vantage of a male poet, but Smith ameliorates her subversive stance by depicting a fisherman at the cliff’s edge in her stead.

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197 To name just a few scholars who have investigated this convention, see Marlon B. Ross, Labbe’s Romantic Visualities, and Jennifer Keith’s Poetry and the Feminine.
Nevertheless, the implication remains that she has occupied this masculine space, and the
difference between her relation to the environment and that of the fisherman stands out in
relief:

—The summit bare

Is tufted by the Statice; and there,

Crush’d by the fisher, as he stands to mark

Some distant signal, or approaching bark,

The Saltwort’s starry stalks are thickly sown,

Like humble worth, unheeded and unknown!— (ll. 173-78)

In her note to “Statice,” Smith explains that the plant “is frequently used for borders of
flower beds. It covers some of the most sterile cliffs” (l. 174n). Statice thus exists on the
“borders” between the domestic and the uncultured, the land and the sea, as well as
between the relatively known and unknown realms of flora. In opposition to the minute
observations of nature exhibited by Smith, the “fisher” “mark[s]” a “distant signal” or
ship, but he fails to “mark” the plant, Saltwort. Smith’s note informs that Saltwort “is
used in the manufacture of glass. The best is brought from the Mediterranean, and forms
a considerable article of commerce. It is very frequent on the cliffs of the Sussex coast”
(l. 177n). She thereby exerts not only her superior knowledge of the fisher’s own terrain
and the origination and value of possible shipments for which he peers so intently, but

198 The “signal” for which the fisher watches may be an allusion to the “illegal commerce” Smith
references in another poem (Curran 101). One additionally may be tempted to hear a slight “military
strain” in these lines; while not mentioning this particular instance, Theresa M. Kelley entertains several of
the poem’s allusions to the Napoleonic Wars in her essay “Romantic Exemplarity: Botany and ‘Material’
Culture,” Romantic Science: The Literary Forms of Natural History, ed. Noah Heringman (Albany: State U
also her moral superiority over the fisher through greater sensitivity to life, troped, in a sense, as superior observational skills.

It’s tempting to suggest that this fisher represents Smith’s parody of those contemporary poets who stand at lofty heights and channel all their mental powers to squint into an abstract distance. Too absorbed in some distant object to notice the intricate worlds of which he forms a part, the fisher “crush[es]” the Saltwort underfoot. Smith’s depiction of this plant’s “starry stalks” and of its role in the production of glass amplifies the plant’s delicate fragility and gains sympathy for its neglect. Saltwort’s association with glass additionally conjures up various tools of observation such as the microscope and magnifying glass so that the plant may be said to participate in its own discovery and inspection, a self-reflexivity that extends to the poet as well. In a note, Smith identifies the Saltwort as a native of Sussex and her earlier sonnets provide precedence not only for situating the poet herself in Sussex, but also for envisioning her as a frequenter of cliffs; one hears the intent of personal analogy when Smith likens the plant to “humble worth, unheeded and unknown!” And just as the fisher “mark[s] some distant signal,” Smith wishes the reader to mark her signal, warning of the poem’s immediate destination. Not only does proceeding past the stanza’s edge mean stepping off the cliff’s edge to plunge into the sea, but in taking that step, we also enter the as yet unordered, unidentified “unknown!”

“From [the] depths” of the sea, knowledge undergoes crisis, stymied by uncertainties. Smith’s watery plunge in the penultimate stanza brings to light the struggle of taxonomic systems to place ambiguity. Liminalities straddling between kingdoms, classes, orders, or species set the taxonomist—for whom everything must fit into its
single, designated category—on edge. Gazing on the gradually receding shoreline of the known, Smith, the poet-naturalist, provocingly spotlights those oceanic objects most disruptive to botanical order. She sets the stage with “corals,” which Smith uncharacteristically denies a note perhaps because she takes for granted that the dispute over whether to classify corals within the plant or the animal kingdom is well-known (l. 179). Barbara Stafford explains that corals and ceratophytes
decentered both kingdoms by calling any hard and fast boundaries between them into question….These living ambiguities obeyed William James’s “law of dissociation,” whereby what was first associated with one thing and then with another tended to become dissociated from either and grew into a separate object of contemplation.199

James’s “law of dissociation” interestingly compares with the late eighteenth-century circular or quinary system of MacLeay and Swainson in which “the pattern of three major circles, the typical group, the sub-typical group, and the aberrant group (divided into three) is the pattern repeated throughout the smaller groups.”200 While labeling its third group “aberrant” and thus sustaining primacy of traditional binaries, the quinary system (like “dissociation”) nevertheless acknowledges the multiplicity of identities that are ultimately placeless within dichotomies and require the creation of new categories.

Following the inclusion of corals, Smith provides example after example of species that classification strains to encompass. These taxonomical dilemmas within the ocean’s environment find reflection in her own claims to knowledge as well. Resembling

the taxonomic technique of “lumping,” Smith’s note for “Algae” hazards that “Algae, Fuci and Conferva, include, I believe, all sea plants” (l. 181n). Although this note contains the pronoun “I” (only Smith’s second use of this pronoun in “Flora”), rather than bolstering the poet’s authority, the self-reference suggests uncertainty due to shortcomings in the ordering system on which she relies.201 The disclaiming phrase, “I believe,” fragments Smith’s tone of confidence in her scientific knowledge. Becoming increasingly ostentatious in her exposé of the unknown, Smith next exhibits the “Polyp” which, like coral, occupies a liminal status between kingdoms, balancing on the border of “half flower, half fish” (l. 182). Not confined to the notes, this insertion of ambiguity directly into the poem’s verse increasingly registers Smith’s intent to highlight fractures in the taxonomic order. Fracturing further, in the note for “Coralline” Smith questions both her source of information and her ability to decipher its meaning: “Coralline is, if I do not misunderstand the only book I have to consult, a shelly substance, the work of sea insects, adhering to stones and to sea weeds” (l. 184n). So phrased, Smith shifts blame for incertitude away from herself and onto this lack of textual information that frustrates her efforts at exactitude, and thus emphasizes the need for first-hand observations. Even language itself strikes Smith as inept, prompting further endnoted apologies for her use of “Panier’d”: “Panier’d is not perhaps a word correctly English, but it must here be forgiven me” (l. 191n). It must be forgiven because correct definitions within systems of language and of identification are quickly eroding in the poem’s context.

The poet makes one last effort to salvage knowledge before taxonomy collapses entirely. In the note for “Pinna,” or “the silk-worm of the sea,” Smith asserts confidence, but gives up authority by predicing her knowledge on a note (and thus a scientific, not

201 The pronoun is used once previously in a similar “I believe” phrase regarding Yucca (l. 84n).
poetic, positing) of Erasmus Darwin. This, Smith’s final note, proves pivotal. After symbolically abandoning her own attempts to make sense of taxonomic uncertainties, Smith announces the implementation of an alternate method: “The subsequent lines attempt a description of sea plants, without any correct classification” (l. 192n, emphasis mine). While Smith’s phrasing obscures whether these sea plants have no “correct classification,” or only that she lacks the desire and/or means to classify them, her preceding taxonomic frustrations support conjoining these interpretations. The poet cannot classify the remaining sea plants because she has shown taxonomies to be unreliable within this space of broken boundaries. In the face of the unordered, “unknown!,” these systems of knowledge have failed her. Hence Smith abandons taxonomy and retains only natural history’s emphasis on observation. She revels in revealing the unnamed, that which can only be communicated through “description.” She additionally feminizes this alien realm by populating it with “Sea-maids” who respond to the female Fancy’s call:

…each her trophy brings

Of plants, from rocks and caverns sub-marine,

With leathery branch, and bladder’d buds between;

There its dark folds the pucker’d Laver spread

With trees in miniature of various red;

There flag-shaped Olive leaves depending hung,

And fairy fans from glossy pebbles sprung. (ll. 192-98)

These lines, detailing “sea plants” Smith encountered on excursions along the shoreline, express her mind’s free associations based on sensorial experience. While proclaiming
the dictation of Fancy, her observations communicate all that can be known about these natural objects. Plant analogies conjure up familiar images (“branch,” “buds,” “trees,” and “leaves”), but the poet relies upon carefully crafted modifiers simultaneously to illuminate the scene’s foreignness (“leathery,” “bladder’d,” “pucker’d,” “various red,” etc). Through her method of description Smith displays how these natural objects in all their variance can be appreciated, and not merely defined or delimited. Celebrating nature in the absence of names and orders, the poet-naturalist gazes in sympathetic identification with the unidentified, whose very existence retrospectively destabilizes Smith’s early confidence in the poem’s classifications, supporting both her interrogations of naturalists’ assertions and her efforts to attain more accurate information.

Smith once remarked on her propensity for asking “questions which I have generally been stared at for making” (195). In light of her fearless questioning of taxonomies, it is intriguing that when she depicts her literary career in the late poem, “To my lyre,” after delineating women who encode social constructions of femininity, she quickly demands a broader taxonomy than that which creates a mere gender binary, “For,” she declares, “I was of a different species” (ll. 19-22, 24, emphasis mine). It was not until many years after the publication of Smith’s “Flora” that the sea’s ambiguities received extensive scientific attention. Philip Henry Gosse (1810-1888) “was the first to introduce to a popular audience the life of the seashore…. [he] single-handedly created marine biology.”202 In her sea exploration, Smith’s focus on those forms that challenged the classificatory systems of her day provocatively gestures toward nature’s mysteries.

Unifying scientific participation and poetic originality, Smith displays nature’s mysteries to emphasize that which requires further study and observation. In so doing,

she sometimes (counterintuitively) contests science’s capacity to dispel its uncertainties, as in her poem, “The Swallow,” which explores bird migration and concludes,

Alas! how little can be known,

Her sacred veil where Nature draws;

Let baffled Science humbly own,

Her mysteries understood alone,

By Him who gives her laws. (ll. 66-70)

Since Smith debuted this poem near the end of her educational text on birds, her sardonic tone regarding the “baffled” and “humbl[ed]” state of “Science” is contradicted by the text’s previous pages in which Smith establishes that much, in fact, “can be known” about Nature and that she herself actively contributes to discovering nature’s “laws.” Playing on a basic tenet of natural theology, she references God’s inscrutable “laws” paradoxically to imply that these laws’ very existence makes nature potentially knowable and predictable. As numerous naturalists proclaimed in the prefaces to their works, gaining greater insight into God through the divine or natural order composed a fundamental goal of natural history. This negotiation of “Nature” as un/knowable allows Smith to highlight a tension bound up in the poet-naturalist. Romantic poets frequently claim inspiration from divine authority or poetic genius, and endeavor to bring reconciliation to that which we do not know, to not knowing, so that poetry itself derives from life’s mysteries and wonders. However, as Adam Smith famously declared, the naturalist, unlike the poet, tenaciously works “to get rid of that Wonder, that uncertainty and anxious curiosity excited by” that which does not fit easily into taxonomies or lacks
Thus, in conjoining the categories of the poet and the naturalist, Charlotte Smith’s aesthetic often appears torn between accepting the mystery (especially in her poetry) and striving to solve it (especially in her notes). However, her poetic articulations of natural-historical mysteries, I argue, are in fact the verse equivalent of challenging readers, as she does more directly in her educational prose, to get involved in solving those mysteries and furthering what is known; in other words, the point of revealing what requires investigation is to inspire that investigation.

Exceeding Aikin’s exhortations to the poet to “discover and investigate new facts,” Smith encourages others’ natural-historical involvement as well and thus emphasizes the science’s collectivity. In The Natural History of Birds, she urges military men to record first-hand observations of birds’ migratory habits in locations like Gibraltar while traveling in their country’s service. Lamenting that “young men in the army are rarely taught to have a taste for natural history, and consider everything of that sort as childish and useless,” she seeks to persuade these potential contributors that “this branch of science…is neither effeminate nor expensive, but leads to much of the best knowledge, that man in any rank or profession can acquire,” and thus to join in the study and discovery of natural-historical details that might help to resolve open contentions within ornithology (1:140). Smith encourages people of various professions and geographical contexts to help “throw some light on questions” that “cannot be settled but by a course of accurate observations made by persons in different parts of the world” (Birds II:60-1). Dependent on new facts and discoveries, the poet-naturalist inspires readers to get involved in making those discoveries.

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Communication, collaboration, and the widespread involvement of everyone from observant amateurs to “professed naturalist[s]” seemed key to the success of natural history throughout the eighteenth and early nineteenth centuries as naturalists sped to document newly-discovered species as well as new perspectives on various species’ behaviors, providing, they hoped, an ever-clearer and more complete understanding of the natural order. Just as Smith’s encouragements of participation in this science echo Aikin’s, his, in turn, renew those of the naturalist, Thomas Pennant, who may be said to continue the earlier call of John Ray, and so on. Gilbert White composed his popular *Natural History of Selborne* entirely from letters of correspondence to the naturalists, Daines Barrington and Pennant. Although a steadfast British nationalist who Smith calls “the British Pliny,” Pennant boasts of his communications with the Swedish Linnaeus and the French Buffon in his autobiography, displaying that the communal spirit forged in the search for knowledge of nature could sometimes overcome the prejudices of national difference (a topic explored further in the next chapter). Linnaeus dispatched his students, known as his “apostles,” to the far corners of the globe in order to establish crucial networks of communication regarding species in various biogeographical contexts. Joseph Banks received plant specimens and informative correspondence from over 126 interested individuals, worldwide, many of whom were not personally known to him but responded with the public enthusiasm for his collecting endeavors. Smith herself exchanged letters with James Edward Smith, the English botanist and founder of the Linnean Society of London, and her literary interactions with naturalists

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include, in addition to Darwin, White, and Linnaeus, also Pennant, William Withering, Thomas Martyn, Colin Milne, John Lightfoot, and Comte Antoine Francois de Fourcroy, to name a few whose scientific assertions she addresses in her educational prose and the notes to her poetry, emphasizing improved knowledge of nature through joint inquiry. Importantly, because in her notes Smith engages with equal attention and intensity with poets as well as naturalists, she brings this sense of collaboration into the poetic realm, manifesting the collectivity she demonstrates as taking place in science also through her poetic borrowings.

**The Jay and the Nightingale; or, Plagiarism and Original Imitation**

In her most scholarly text, *The Natural History of Birds*, in addition to delineating ornithological species’ classification, physical description, habitat, prey, behaviors, nest construction, information about eggs, songs, usefulness to humanity, and connections to history, mythology, and poetry, Smith produces four instances of refurbished fables. Published posthumously, the text contains a “Preface by the Editor” claiming Smith’s success in “distinguish[ing]” herself as an “original writer” rather than a “mere compiler” (iii). Smith writes *Natural History* as a continuation of *Conversations* in a series of letters from Mrs. Talbot to her eldest son, Edward, who is only mentioned and never makes an appearance in the earlier text. Mrs. Talbot charges Edward and George with explaining to their younger sister, Emily, anything she may not understand, suggesting that Smith targets a significantly older and more informed readership here.
Smith’s bird fables draw on those by Jean de la Fontaine, Pilpay (Bidpai), and Aesop, to interweave moral with natural-historical lessons. Interestingly, her reworking of la Fontaine’s fable, “The jay in masquerade,” warns against the dangers of plagiarism (I:60). She depicts a vain Jay who arrays himself in the dropped plumes of a peacock only to be “ridicule[d]” by “all the folk of the feather.” Admonishing her youthful audience to “Be what you are…Factitious Art can ne’er attain / The grace of young Simplicity,” Smith moralizes against the imitation of affected mannerisms and modish fashions. Her ending lines, however, have a different readership in mind. She closes with the flourish,

And ye, whose transient fame arises
From that which others write or say,
Learn hence, how common sense despises
The pilf’ring literary Jay. (ll. 97-100).

Distancing herself from plagiarism by warning others against it, Smith places herself among the accusers rather than the accused to imply that her own borrowings should be understood differently from those of the “pilf’ring literary Jay.” Within her *Natural History*, she naturalizes this fable’s analogy between birds and poets, and justifies her poetic practices through portrayals of imitation and originality occurring in nature.

Smith investigates the “natural” occurrence of imitation within her section addressing “the sixth, and most interesting order of birds…the Passeres, which includes all the singing birds” (II:27). According to Smith, several species belonging to this order, including the Starling, Canary, Bullfinch, and Reed Sparrow, imitate the songs of other

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birds. She often confirms these instances of natural imitation through personal experience: “I once had a nest of Bullfinches given me, of which one was reared….she hung in the same room with a very fine Virginia nightingale, whose song she soon acquired, and went through the same notes in a lower and softer tone” (II:64). This account of imitation supports Darwin’s argument in his chapter “On Instinct” in *Zoonomia* that birds’ songs are taught, are learned through imitation.208 Anna Seward disagreed with this assertion in her *Memoirs on the Life of Dr. Darwin* (1804), and perhaps Smith’s natural-historical perspective contributed to her judgment of Seward’s *Memoirs*: “I never read so very absurd a book.”209 Smith’s acknowledgement of imitations among birds and her readiness to think of birds in relation to poets naturalizes the practice of some imitations among poet-songsters as well.

Importantly, in Smith’s examples of borrowed and intermixed bird-songs, the origins of those borrowings remain clear. Although the bullfinch imitates the song of a nightingale, that song remains recognizable as the nightingale’s, even when sung by another. Smith thus demonstrates that borrowings do not damage our ability to identify their locus of origination; nor does the fact of imitation necessarily damage the beauty of the borrower’s song. The bullfinch’s “lower and softer tone” indicates a ventriloquism that recasts the nightingale’s notes in the borrower’s own unique “voice.” This designates a seamless appropriation that, in literary terms, qualifies as successful improvement, as when Coleridge absolves Byron from Wordsworth’s criticisms: “W. Wordsworth calls Lord Byron the Mocking Bird of our Parnassian Ornithology; but the

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Mocking Bird, they say, has a very sweet song of his own, in true Notes proper to himself.”210 Because Byron sings his borrowings in his own “true Notes,” he maintains the cohesive spirit of his individuality, and thus Coleridge deems Byron’s ventriloquizations to be beautiful and justifiable. Similarly, then, Smith’s poetic appropriations, recast in her own voice and meant to be recognized as of other origin, both fulfill contemporary standards of literary improvement and reflect the mode of borrowing she perceives in nature.

However, Smith significantly exempts the nightingale from her examples of feathered imitators and singles out this bird as the one being imitated in her descriptions of both the bullfinch and the canary (II:72-3). Her representation of the nightingale thus differs from Darwin’s in his chapter “On Instinct,” with which Smith was certainly familiar.211 Darwin records that nightingales “never sing till they are instructed” which leads him “to suspect that the singing of birds [more generally]…is an artificial language,” acquired through imitation.212 Moreover, in Aikin’s essay, when he recommends young birds practicing their songs as a new natural-historical subject for poetry, he quotes Pliny on nightingales’ imitative rehearsals: “The younger sort mediate and receive lessons for their imitation. The scholar listens with great attention, and repeats” (136). Yet, in the bird’s adulthood, Aikin highlights Barrington’s observations that the nightingale possesses a “superiority” in “tone and variety” to all other birds, and even “sings (if I may so express myself) with superior judgment and taste” that can only be described as “excessively brilliant” (137-9). This attribution of superior “judgment,” “taste,” and “brillian[ce]” invests the adult nightingale with the appearance of

210 Quoted in Mazzeo 44.
211 Smith quotes from Darwin’s chapter “On Instinct” in her section on the Cuckoo (Birds I:73).
212 Darwin, Zoonomia, I:155.
autonomous creative ability within aesthetic terms that transfer directly to the evaluation of poetic expression. Although Aikin and Darwin describe the nightingale as imitating its own rather than other species, Smith ignores their focus on nightingales’ imitative capacities and emphasizes instead this aesthetic originality. As illustrated in this chapter’s introduction, Smith overtly associates her poetic persona with the nightingale. Her representation of the bird as imitated but not itself an imitator thus implies both the nightingale’s and, by association, Smith’s originality.

In *The Natural History of Birds*, Smith provides poetic representations of various ornithological species, quoting lines from Shakespeare, Thomson, Gray, Cowper, and so on, but exemplifies two of her own elegiac sonnets only in regard to the nightingale. Displaying her identification with the bird, Smith calls the nightingale “Sweet Poet” and declares her desire “To sigh, and sing at liberty – like thee!” The nightingale’s solitude and “mournful melody” dramatize Smith’s conception of her era’s poetic character and of her own famously melancholic poetic persona in particular. Thus, in a clever process of association, Smith both naturalizes the imitations enacted by birds like the canary and bullfinch as a means of legitimizing certain poetic borrowings, and simultaneously correlates her poetic persona with absolute originality through the nightingale.

In accord with Smith’s notions of originality and “proper” borrowings, her fable of the Jay indicates that plagiarisms become “ridicul[ous]” when an author tries to pass off others’ verses as his own, without acknowledgement or improvement. Since, in the Romantic era, “a work could be considered implicitly acknowledged or ‘avowed’ if a ‘well-versed’ reader could be expected to recognize the original,” Smith’s citations of borrowings often go beyond the standard of acknowledgment generally demanded by
contemporary critics and demonstrate her desire for her borrowings to be recognized.\textsuperscript{213} Indeed, since Smith’s borrowings from well-known authors may be said to constitute implicit acknowledgment, this, combined with her efforts toward improving borrowed verses, weakens the case against her as a plagiarist even in her earliest writings. With Smith’s further addition of citations in the third edition of her sonnets and subsequent works, she puts the question of her adequate acknowledgment of borrowings to rest altogether, as even Seward grudgingly implies when she writes of Smith’s \textit{Elegiac Sonnets}, “I have not seen the [third] edition, but am told that she has in that put the quotation marks so disingenuously withheld in the first publication.”\textsuperscript{214} Smith’s appropriations draw from the poetic tradition, allowing her to participate in selecting which sentiments are worth regenerating; this process correlates with her selective and corrective adjustments to naturalists’ assertions. Enacting constant improvement and collaboration, Smith transfers to poetry the unceasing progress of thought that Aikin locates in science. She builds upon the assertions of other poets and naturalists, and achieves collective originality when she cohesively ventriloquizes those borrowings within the primacy of her own voice and observations.

Still, if Smith thus sought to dissociate herself from obviously unimproved plagiarism like that dramatized by the fabled Jay, she also felt compelled to suppress that fable from the audience that most needed convincing. Of the poetic fables written for \textit{The Natural History of Birds}, Smith excludes only “The jay in masquerade” and one other poem from reappearance in her better-known posthumous publication, \textit{Beachy}…

\textsuperscript{213} Mazzeo 3.
\textsuperscript{214} Seward, \textit{Letters}, 2:224. Seward mistakenly writes that the quotations and notes were added to the second edition of Smith’s \textit{Elegiac Sonnets} rather than the third.
Head, Fables, and Other Poems, which targeted a broader adult readership. Since in Beachy Head’s “Notes to the Fables” Smith expresses fears of accusations of plagiarism against another of her fables, her omission of the jay poem likely signals her suspicion that, rather than exonerating her past, the “pilfering literary Jay” could provoke perilous comparisons between herself and this bird (rather than the nightingale) and prompt critics to advise that she take her own counsel against illegitimate plagiarisms. Thus, she omits the fable of the jay from Beachy Head and finds herself in a precarious position.

The Lark; or, the Problem of an Original Nature

Smith admits in Beachy Head’s “Notes to the Fables” the inherent unoriginality of fables as a genre, as stories that are old and frequently retold, yet she claims “a degree of novelty” for her original contribution of components of natural history. She thus counters Aikin’s insistence that the genre’s familiarity precludes the introduction of “minute or uncommon relations in natural history” and that “fable is thus unfit for the display of that novelty which natural history affords” (98, 100). Interestingly, the novelty of one of Smith’s fables is indeed compromised, but not in the way Aikin predicted. Assuring her readers that “There is nothing I am more desirous of avoiding, even in a trifle like this, than the charge of plagiarism,” Smith explains, “I must in the present instance defend myself.” She expresses surprise at finding in James Grahame’s The Birds of Scotland, with other Poems (1806) “what, if my fables had been first published, I might perhaps have thought very like an imitation.” Comparing passages between her fable in question,

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215 “The dictatorial owl” was also omitted from Beachy Head.
216 Aikin also objects to fable because it “considers every animal as a human creature; and therefore has to do only with such of its qualities as bear a resemblance to the affections and manners of mankind, not with such as peculiarly constitute its natural history” (99).
“The Lark’s Nest,” and similar passages from Grahame, she then strikingly posits that “The extreme resemblance of these passages may be accounted for…by the observation very justly made that natural objects being equally visible to all, it is very probable that descriptions of such objects will be often alike” (emphasis mine). Here, she significantly and radically undercuts Aikin’s confident assertion that “Such is the variety of nature, that original [poet-naturalists], even of the same subject, need not be apprehensive of falling into an uninteresting sameness” (87). Whereas Aikin insists that accurate observation of nature provides poets with inexhaustible multiplicities of thought and expression, Smith now qualifies that enthusiasm and questions the extent of poetic originality available through natural history poetry. Smith understands that nature’s degree of fixity enabling direct experiences and observations to be repeated and generalized makes science possible. However, she also now recognizes that this fixity, making the naturalist consistent and accurate, could prove devastating for the poet whose close observations of nature risk appearing as poetical borrowings from other poets closely versifying the same natural phenomenon. Under such circumstances, even relatively new scientific observations and discoveries may not retain their novelty for long, and it therefore becomes a race of who can poetically inscribe the data before it becomes exhausted. To achieve the poetic originality promised by Aikin, poets must indeed continuously “discover and investigate new facts,” and participate in the verification and debate of scientific assertions, but, for Smith, the quest ends in a disheartening discovery within the realm of poetry.

In her initial publishing of “The Lark’s Nest” in The Natural History of Birds, Smith explains that in refashioning Aesop’s fable she has “dressed it with a few botanical
ornaments, which I think you will allow to be an improvement” (Birds II:45). She thus adheres to contemporary critical standards of refuting plagiarism by claiming “improvement” to Aesop’s work. However, the preemptive defense she considers necessary against Grahame when republishing the fable in Beachy Head illustrates that Smith has learned a great irony – the copying of nature may just as readily lead to charges of plagiarism as the copying of art. When species and natural phenomena are not subject to alterations, “descriptions of such objects will be often alike.” Since Beachy Head was published posthumously and marks the last volume of poetry she produced, it is impossible to say whether this poetic realization would have discouraged Smith’s future use of natural history in her poetry. Her delight in pointing out mysteries in nature requiring further investigation indicates belief that much potential remained for nature to lend novelty to verse. Yet, as I show in my remaining chapters and epilogue, had she lived to see it, an imminent shift in the practice and portrayal of natural history itself, and in its accessibility to women, may have had more dire implications for her poetic uses of the science.

“A Solitary Bird”

Smith’s (self-)representation of the nightingale embodies the now-preeminent formulation of the Romantic poet as genius who sings in inspired and often melancholy isolation. Her portrayal participates in similar self-representations propounded by other writers of the era that contribute to the legacy conflating Romantic authorship with autogenous originality, as when Wordsworth claimed that the writer should “owe nothing
but to nature and his own genius.” Natural history’s reliance on collaboration and competitive exchange thus may seem to oppose the era’s prevailing aesthetic. However, by presenting herself as a poet-naturalist, Smith interestingly bridges scientific and literary expectations. Notes to her poetry create a context for documenting her scientific knowledge, discoveries, and engagements with fellow naturalists, as well as the collective exchange occurring in her numerous borrowings and improvements within the poetic tradition. Smith’s richly notated interactions with both natural history and poetical history subtly deny the solitary posture of the visionary poet even as she employs that posture to consolidate her claim to originality. Scholars have long recognized the trope of the autonomous poet as “an aesthetic fantasy,” a “bogeyman” of the “Romantic cult of the individual genius” that belies a more richly collaborative mode in reality pervading the writings of Romantic-era poets. The period’s extensive appropriations of lines and ideas from various sources led Thomas Peacock (of apt ornithological affiliation) to complain in *The Four Ages of Poetry* (1820) that “Southey wades through ponderous volumes of travels and old chronicles…and when he has a common-place book full of monstrosities, strings them into an epic,” and Wordsworth, Scott, Byron, and Coleridge each similarly “picks up,” “digs up,” “cruizes for,” and “compound[s]” “heterogeneous congeries of unamalgamating manners.” Peacock’s satirical description of “disjointed relics of tradition and fragments of second-hand observation” suggests his critical assessment of unsuccessful assimilation and enlivens our perspective of these poets’

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217 Wordsworth, “Essay, Supplementary to the Preface” (1815).
intertextual productions as collections of sorts. Smith’s own insistence on the poet-
naturalist’s immediate, personal observations lends an intriguing corrective to the
“second-hand” appropriations Peacock denounces in the poetry of these male
contemporaries while her obsessive “restor[ations]” of verse borrowings and her citations
of naturalists also simultaneously underscore the Romantic paradox of collective
originality.

In the notes to her poetry, Smith’s engagements with science’s crucial networks
of transnational communication arguably gesture toward natural history’s cosmopolitan
potential. Natural history concurrently brings out national tensions as well as
opportunities for collaboration. In the first stanza of *Beachy Head*, Smith cites geological
theories of continental shifts and envisions the politically-charged moment of England’s
isolation, of becoming “divided” from France,

the strange and awful hour

Of vast concussion; when the Omniscient

Stretch’d forth his arm, and rent the solid hills,

Bidding the impetuous main flood rush between

The rifted shores, and from the continent

Eternally divided this green isle (ll. 5-10).

Characteristically questioning naturalists’ assertions, Smith’s note clarifies that her own
investigations find nothing to support such claims: “I confess I never could trace the
resemblance between the two countries.” For Smith and her contemporaries, the
American and French revolutions and Napoleonic Wars created political conflict in
which natural history was unavoidably embroiled, even as science was often celebrated
for its supposed immunity from national prejudices. Chapter Five explores Helen Maria Williams’s revolutionary convictions in the context of her attention to naturalists’ (and particularly geologists’) different concepts of cosmopolitanism in both society and nature, portraying natural history’s modes of globalization in the mist of national and imperial strife.
Chapter 5

Revolutionary Cosmopolitanisms: Helen Maria Williams’s Politico-Geological Nature

Throughout the second half of the eighteenth century, natural history remained near to the public domain, inciting enthusiasm and participation from amateur naturalists as an “open and egalitarian” form of natural inquiry; indeed, contemporaries of the French Revolution sometimes represented natural history as science’s democratic ideal.220 An early proponent of republican values, Helen Maria Williams’s renowned salons in London in the 1780s, and later in Paris, drew visitors of shared political views from all over the world including many naturalists. Now best known for her eight volumes collectively called Letters from France (1790-1796), Williams supplied first-hand accounts to Britons eager for news of the revolution’s development (or degeneracy). Modern scholars frequently remark that after 1791 Williams never returned to Britain, residing thereafter primarily in France, and her bold entry as a woman in the political sphere as well as her continued support for revolutionary principles provoked censure from British contemporaries. In this chapter, I expand this critical narrative to explore how Williams’s shifting perceptions and portrayals of France’s political history importantly reflected her understanding of natural history.

Possessing knowledge of the natural sciences and particularly of geology, Williams translated into English the works of naturalists, including J.H. Bernardin de Saint-Pierre’s popular novel, Paul and Virginia, Louis-Francois Ramond de Carbonniere’s essay on Alpine glaciers, and two of Alexander von Humboldt’s major works of exploration in South America. In these texts, Williams exemplifies a

collaborative approach that accorded with revolutionary convictions of inclusion by adding her own rhetorical lens, poetic augmentations, and even scientific insights. Many of her original works also participate in natural history, and the science’s ability to unite people in a common, collective goal analogized and corroborated her republican sentiments.

Nevertheless, natural history’s relation to society altered during Williams’s literary career, and I argue that she reflects those changes in her respective poetic depictions of Captain James Cook, and of the naturalists, Erasmus Darwin and Humboldt. For her, each of these men emblematizes different stages in France’s shifting political climate, as well as different forms of cosmopolitanism. Williams’s portrayal of Cook anticipates the universal equality promised by sociopolitical revolution, which she further epitomizes in her writings on the Swiss Alps, associated with Darwin and concepts of geological “revolution.” Humboldt, on the other hand, later represents a different kind of cosmopolitanism, one that emphasizes distinctions between particulars in establishing universal claims. Like many of her contemporaries, Williams subtly correlates Humboldt’s ambitions as a naturalist with Napoleonic conquest and egotism, rather than with the republican principles she earlier invested in Cook’s scientific, humanitarian cause. Humboldt represents a transitional figure in the professionalization of the natural sciences. For Williams, France’s altering political circumstances compare with natural history’s trend toward specialization, moving away from the inclusivity earlier intrinsic to encouraging serious public participation, especially from women, as exemplified in the Cook voyages.
“The Friend of Human Race”

Captain James Cook’s first voyage to Tahiti, New Zealand, and Australia (1768-71) revolutionized natural history. He returned to Britain with an unprecedented number of plant and animal specimens, “as well as charts, journals and calculations that put parts of the world on European maps for the first time.”

Joseph Banks, the English botanist and later president of the Royal Society, accompanied Cook on that initial expedition and, with his employees, collected 1,000 zoological and 30,000 botanical specimens, increasing the number of known plant species by 25 percent (35, 9). Banks later promoted these natural history discoveries as a means to solicit further aid in collecting specimens and information, penning over 20,000 letters to correspondents across the globe (36). Although Cook had secret orders to claim land for expansion of the British Empire, his voyages’ explicit pursuit of scientific knowledge appeared to depart from previous conquest-driven explorations (10). As opposed to the embarrassing losses in colonial America and the imperial brutalities inflicted in India and the Caribbean, Britons took pride in Cook’s peacefully-motivated discoveries as benefiting all of humanity.

Cook’s death in the Hawaiian Islands on 14 February 1779, during his third expedition, thus shocked and saddened British readers when news finally reached London on 10 January 1780. Reports of the great voyager’s death generally depicted Cook as heroically altruistic to the end. After Hawaiian islanders stole a large cutter, his ship’s biggest and most useful boat, Cook attempted to recover it. According to eyewitnesses a skirmish ensued and, during Cook’s efforts to make his men cease firing, islanders savagely

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overtook and killed the navigator, so that Cook ultimately fell victim to his “excessive humanity.”

Women writers took an active interest in Cook’s explorations and in the man himself. Shortly before closing his biographical *Life of Captain James Cook* (1788), Andrew Kippis finds it “somewhat remarkable that female poets have hitherto been the chief celebrators of Captain Cook in this country,” and urges that a subject so steeped in science and discovery “may hereafter call forth the genius of some poet of the stronger sex.” By the time Kippis published his biography, Cook had in fact appeared in poems by Cowper and Hayley, but more popular were the verse-tributes of Hannah More and especially Anna Seward. Despite his anxieties about Cook’s appeal for women, Kippis introduced yet another female poet’s “wreath to the memory of our navigator” by including Helen Maria Williams’s poem, “The Morai: An Ode,” as an appendix to his work (376).

Active in political, scientific, and literary circles, Kippis ministered a dissenting church in London attended by Williams, her mother, and sisters, and mentored Williams whose father died when she was an infant. Kippis ushered into public notice earlier poems by Williams as well, writing the Advertisements for her first three poetic works, which she published anonymously in the early 1780s. Thus encouraged in her talent for poetry, Williams also garnered the support of Elizabeth Montagu, who headed the legendary Bluestocking circle and to whom Williams dedicated her 1784 poem, *Peru*. In

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222 Glyn Williams, *The Death of Captain Cook: A Hero Made and Unmade* (Cambridge, Mass.: Harvard UP, 2008) 40. This author explains that such portrayals of Cook contributed to the lionization of Cook’s memory, but there were other contemporary accounts that suggested Cook may have fallen victim to his “excessive anger” rather than excessive humanity.

223 Andrew Kippis, *Life of Captain James Cook* (London, 1788); my quotations are from a more recent reprint, *Captain Cook’s Voyages* (New York, 1925) 376.

224 Give the names of all of these poems.

225 “Edwin and Eltrada” (1782), “Ode on the Peace” (1783), and *Peru* (1784).
1786, Williams published a two-volume edition of poems in her own name and already possessed a wide and adoring audience as a poet of sensibility, famously commemorated in Wordsworth’s first published poem, “On Seeing Miss Helen Maria Williams Weep at a Tale of Distress” (1787). Yet, the sensibility of this “plaintive Muse,” as Kippis calls her, doubtless contributes to his concern for the emasculating potential of female poets’ interest in Cook and his voyages.

The chief poetic celebrator of Cook, Anna Seward, similarly excelled in the rhetoric of sensibility; the two poets became intimate friends, and Seward wrote a sonnet calling Williams her “Poetic Sister.” Seward further complimented the younger poet’s verses on Cook, writing in a letter to Williams, “I have read your glowing poem…and felt at once thrilled and warmed by its solemn fire.” In the same letter, Seward gestures toward her own Elegy on Captain Cook (1780), deriding Kippis’s masculinist anxieties while adopting his imposed solidarity of “female poets.” She confides to Williams, “I smile to see how curiously he guards against either you or me growing too vain on the subject of our poems on Cook,—deploring, as he does, that our hero had no abler panegyrists.” In a later letter to Reverend Berwick, Seward displays more bitterness about the backhanded “praise [Kippis] deigns to bestow on the Muses” (2:220). Dismissing Kippis’s biography of Cook as superfluous to a public already familiar with the navigator’s life, she inverts Kippis’s gender- and literary-hierarchies by deeming Williams’s appended poem as the most impressive part of Kippis’s text; for Seward, Williams’s “Ode seems the gem of the Doctor’s work. It is very sublime. That young

226 Richard Gravil, “Helen Maria Williams: Wordsworth’s Revolutionary Anima,” Wordsworth Circle 40.1 (2009): 57. Wordsworth would not actually meet Williams until 1820, but Richard Gravil posits that “she was, more than Charlotte Smith or Felicia Hemans, his Sappho—his ‘tenth muse.’”

227 Anna Seward, Letters of Anna Seward: Written Between the Years 1784 and 1807. 6 vols. (Edinburgh, 1811) 2:178.
lady’s talents are indeed an honour to our sex.” Extolling Williams, Seward thus asserts women poets’ ability to illuminate “vivid and original” aspects of a well-known scientific narrative, while portraying Kippis as failing in the attempt. Paradoxically, Williams’s originality owes in part to her poem’s reiteration of key images from Seward’s Elegy, with differences that indicate these female poets’ separate agendas, readily displayed through comparison.

While Williams’s poem functions, literally, as an addendum to Cook’s life, Seward’s Elegy, published in June 1780, a few months after Britain received news of Cook’s death, acts as a biography in itself, relating exciting episodes from his expeditions through “The scorch’d Equator, and th’Antarctic wave” (l. 30). Seward’s numerous footnotes, often quoting the published account of Cook’s second voyage, highlight resulting discoveries in natural history, reference Linnaeus, and describe new and exotic species, including the Kangaroo, Giant-bat, and “coral rocks” created by “sea-insects.”

Stressing the voyages’ commercial benefits, Seward explains that a plant found in New Zealand contains fibers that “are longer and stronger than our hemp and flax; and some, manufactured in London, is as white and glossy as fine silk. This valuable vegetable will probably grow in our climate” (41). Indeed, for Seward, this importation of economically viable discoveries makes “imperial London” the cosmopolitan center of the world (l. 17). Cook’s explorations materially augment the global bounty already enjoyed by Britons in refreshing “cups of summer-ice,” “the incense of Sabaean vales” from the “Orient,” and Italian silks and “artful song” (ll. 19-23). However, Seward subordinates this celebration of empire’s commercial benefits to Cook’s conferrals of British charity.

228 Anna Seward, The Poetical Works of Anna Seward; With Extracts from her Literary Correspondence. 3 vols. Ed. Walter Scott. (Edinburgh, 1810) 2:40, 42.
According to Seward, the guiding power of “BENEVOLENCE” motivates Cook’s expeditions that convey “garden-seeds,” implements, and livestock to South Pacific islanders (ll. 121-32). He plants the seeds both of vegetables and of Christian values, and his charitable intentions starkly contrast with those of “half the warring world [who]…dye the distant waves in human gore” in the American Revolution (ll. 203-9). Cook pursues peace even among the cannibals of New Zealand, where “the frowning natives….scowl with savage thirst of human blood!” (ll. 109-12). In Seward’s account, most islanders gratefully “Rever’d the stranger-guest, and smiling strove / To sooth his stay with hospitable love,” especially the people of “Otaheite” or Tahiti (ll. 115-6). Her description of “hospitable love” cools accounts of Tahitians from Cook’s first voyage that fired British imaginations with tales of edenic free-love, a temptation from which Cook abstained (ll. 115-6). His moralizing example to both the Tahitians and his crew uniquely qualify him, in Seward’s portrayal, as a hero of sensibility. When part of an iceberg breaks perilously close to Cook’s ship in the second voyage, for instance, she records an effusive emotional reaction as he “checks the rising sigh, / And turns on his firm band a glist’ning eye” while care and compassion for his crew “starts the impassion’d tear” (ll. 91-2, 95). Such sentimentalized depictions allow women writers like Seward to align Cook’s achievements with virtues that, in Kippis’s view, feminize the hero.

Promoting feminine virtues as laudable British values, Seward justifies women’s involvement in national and scientific concerns, and represents women as guardians of national principles by appropriating for them the task of mourning and memorializing Cook’s death. First imagining the Tahitians’ “Morai” or “funeral altar” for Cook, Seward notes that a frantic and bloody female, their “chief mourner wanders around it in a state
of apparent distraction, shrieking furiously, and striking at intervals a shark’s tooth into her head. All people fly her, as she aims at wounding not only herself, but others” (44-5). Seward contrasts this violent and foreign female grief with a less frenetic British response, exemplified by “a softer form,” Cook’s widow, gazing out on the sea from “aloft on Albion’s rocky steep,” and waiting “in vain” for her husband’s return (ll. 247, 249, 251). This more reserved feminine reaction expresses a devotion and dignified depth of loss by which Seward depicts British women as modeling for the Tahitians how to mourn Cook’s death, just as Cook modeled morality for the islanders in life. Cook’s achievements thus become synonymous with British greatness and the moral authority of that country’s grieving women, implicitly women writers like Seward who, in representation of the nation itself, ensure that “his fame shall rise, / In endless incense to the smiling skies” (ll. 269-70). When Seward asserts that her poem is “In deep accordance to a Nation’s woe,” she becomes, as Harriet Guest persuasively argues, “the personification of national identity,” prompting other poets to hail her as “Our British Muse” and “th’immortal MUSE of Britain.” In light of Seward’s concerns with gender and nationalism, it is significant that she originally termed the force motivating Cook’s voyages as “HUMANITY,” and only later changed this to “BENEVOLENCE,” likely in reaction to the backlash against the French Revolution. Charged with implications for European class systems, the two words differ in the relationship they suggest between Cook and the people he encountered. Whereas Benevolence arguably denotes an unequal power relationship that places the European explorer in a position of charitable superiority to the islanders, Humanity denotes a more equal exchange—it is a leveling

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term that Seward prudently discarded, and that better applies to Helen Maria Williams’s poem on Cook.

As opposed to Seward’s focus on nation and gender, Williams, writing eight years later, on the verge of the French Revolution, promotes more inclusive, republican themes that have their basis in Cook’s association with natural history. Her mentor, Kippis, participated in the Revolution Society and viewed the natural sciences as a space in which “nations of the earth [can] subsist together in mutual agreement,” for, “while the political world is always likely to be more or less the scene of altercation,” the world of science “might be expected to continue in a state of tranquility and harmony.”\footnote{Deborah Kennedy, Helen Maria Williams and the Age of Revolution (Lewisburgh: Bucknell UP, 2002) 53; Kippis, Considerations on the Provisional Treaty with America, and the Preliminary Articles of Peace with France and Spain (London, 1783) 3; Kippis, Observations on the Late Contests in the Royal Society (London, 1784) 2.} Cook’s voyages epitomize science’s power to overcome political differences as Kippis records in his biography that, although at war with Britain in the American Revolution, the French Louis XV proclaimed, “such discoveries being of general utility to all nations, it is the king’s pleasure that Captain Cook shall be treated as a commander of a neutral and allied power,” and scientific communities in America and Spain urged similar sanctions.\footnote{Kippis, Life, 351.} Cook thus becomes a symbol of natural history’s ability to unite nations in the common goals of knowledge and progress, a transnational capacity that Williams also attributed to poetry itself and stresses in her poem on the explorer.\footnote{See Williams’s poem, “An Address to Poetry,” ll. 89-96.}

Williams embraces a broader humanity than that which Seward emphasized in feminine values and British national identity and, as Williams’s funereal title suggests, “The Morai” picks up where Seward’s poem ends. While Seward primarily...
commemorated Cook’s life, Williams takes his death as the overwhelming subject of her verse, a subject that lends itself to expressions of both sensibility and universalism. She joltingly interrupts the exotic description of Tahiti that begins the poem to ask, “Whence arose that shriek of pain?” as a means of entering a general meditation on death (l. 27). Refusing to narrow her scope to Cook’s particular demise, Williams articulates grief and loss as transcultural proof of our common humanity:

from the shore where Ganges rolls
His waves beneath the torrid ray,
To earth’s chill verge, where o’er the poles
Falls the last beam of ling’ring day,
For ever sacred are the dead! (ll. 53-7)

Regardless of race or nation, respect for the dead and mourning practices are bound up in death’s leveling force, erasing differences. Williams depicts Tahitian funeral rites as similar to those in Britain, and makes the frantic female Tahitian mourner, repeated from Seward’s poem, seem more genuinely sympathetic and representative of grief’s universality.

When, nearly three-fourths of the way through the poem, Williams finally alludes to the specific death of Cook, her sympathetically-established universals strategically frame the man she calls “the friend of human race” (l. 142). Interestingly anticipating Mary Louise Pratt’s theorization of “the contact zone,” conceptualized “in terms of copresence, interaction, interlocking understandings and practices,” Williams designates the space of Cook’s encounters with islanders as the “connecting zone,” while demonstrating less skepticism than Pratt in a narrative of anti-conquest that “connects”
humanity (l. 47). Williams’s attention to human similarities in the midst of difference emphasizes “philanthropy” as bi-directional within the connecting zone, extending both ways, as Kippis’s biography makes clear through Cook’s dependence on the willingness of natives to exchange provisions and goodwill. Williams distinguishes Cook’s Pacific encounters from both the brutality of Spanish conquest in the New World and, more audaciously, Britain’s contemporary enslavement of Africans (ll. 149-58). In an obvious departure from Seward’s nationalism, Williams critiques Britain’s violations of the connecting zone as violations of Humanity, and separates Cook from a narrowly British identity by designating him instead as “the friend of human race.”

For Williams, as for Seward, Cook’s bereaved widow emblematizes Britain’s immortalization of his achievements, yet Williams’s poem stresses that this immortalization additionally occurs in all nations of the world, for “natives of the earth / Shall oft repeat thy honour’d name / While infants catch the frequent sound, / And learn to lisp the oral tale” (ll. 195-98). More radically in death than in life, Cook becomes a unifying force; his “tale” becomes another common strain in humanity as an international bond preserved by “the muse of history,” a history that is both forward-looking and pervasive of national boundaries (l. 192). And Cook’s role in this progressive political history resonates with his reputation’s inseparability from progress in the egalitarian sciences of natural history. Williams’s 1788 poem thus displays her enthusiasm for revolutionary ideals and exemplifies Cook as representative of republican and humanitarian goals.

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The French Revolution; or Cook Redux?

For Williams, the revolution in France poised Paris to achieve the ideal harmony conjoining natural history, literature, and politics envisioned in her poem on Cook. Upon arrival in Paris on July 13th in 1790, Williams became the self-appointed historian of the French Revolution and, indeed, in her first volume of *Letters from France*, she depicts the revolution as embodying universal humanity, declaring, “Oh, no! this was not a time in which the distinctions of country were remembered. It was the triumph of human kind; it was man asserting the noblest privilege of his nature; and it required but the common feelings of humanity, to become in that moment a citizen of the world” (1:1:14). According to Williams, France’s politicians and naturalists strove toward the same goals of bringing order to chaos so that the seeming disarray of the National Assembly’s debates indicate a developing political order reflective of that found in nature: “the new constitution arises, like the beauty and order of nature, from the confusion of mingled elements!” (1:1:44). Science and politics were of course traditionally male arenas of discourse, and so, for Williams, a sign of France’s progress lies in the extent of knowledge made available to women. In addition to meetings of the National Assembly, women could also attend lectures at the Lycée, formed in 1785, and frequented “not only by men of letters, but by the most fashionable persons of both sexes,” where one could hear lessons delivered “by the most celebrated professors of Paris, on natural philosophy, chemistry, natural history, botany, history, and belles letters” (1:2:130). Lauding women’s participation in scientific discussions at the Lycée, Williams remarks, “I regret we have no such institution in London” (1:2:132). Scientific

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advancements in the study of nature inspired Parisians to extirpate elaborate artificialities of, for instance, manner and dress associated with the *ancien régime*, and nature became representative of the revolution itself, as Williams witnessed in the planting of “the tree of liberty” near her lodgings, and in the republic’s new calendar that renames months of the year to signify seasonal images in nature (2:1:202-4, 1:2:195).

Although promoting the revolution as conducive to gender equality, Williams demonstrates awareness that many British critics disapprove of her political participation and “prophesy that I shall return to my own country a fierce republican” (1:1:66). Attempting to mitigate accusations of gender impropriety, she portrays her political involvement as femininely motivated, assuring readers that “my political creed is entirely an affair of the heart; for I have not been so absurd as to consult my head upon matters of which it is so incapable of judging” (1:1:66). She denies intellectual involvement in politics to defuse critique of her demonstrations to the contrary, proclaiming instead a devotion to liberty that springs from “the superior sensibility which belongs to the female mind” (2:1:213). Williams thus adopts Seward’s tactic from her *Elegy on Cook* of sanctioning women’s participation in science and politics through morality, and declare that the revolution made imminent a time “when the human mind has made as many important discoveries in morality as in science” (1:1:65). But, in this hope for the revolution’s future, she was destined to be disappointed.

As Robespierre came to power and France’s social and political virtues turned into violence, Williams’s vision of the revolution conjured up, not Cook’s legacy of universal humanity, but the most horrific encounters of his explorations. In October 1793, while Williams conversed over tea with the author and naturalist, J.H. Bernardin de
Saint-Pierre, word arrived that all Britons in Paris were to be arrested and their property confiscated in reaction to successive French military defeats (2:1:6). Shortly thereafter, Williams, her mother, and sisters were imprisoned for two months, first in Luxembourg and then in the convent of Les Anglaises. In prison, the specter of Cook haunted Williams as her friends in the moderate political party of the Girondists, representing to her mind the ideals of universal equality and liberty which she had earlier associated with Cook, faced the guillotine at the hands of Jacobin officials, who Williams called “cannibals” (2:2:149). The military Commandant who controlled her prison likewise appeared to Williams as a figure from the voyages, possessing a “fierceness” that “seemed to be of that kind which belongs to a cannibal of New Zealand; and he looked not merely as if he longed to plunge his saber in our bosoms, but to drink a libation of our blood” (2:1:29). For Williams, even the human sacrifices in “barbarous countries” reported from Cook’s expeditions now seem less barbarous than the atrocities in France, where the goal of universal humanity has become a mockery, productive “not of an equality of happiness, but of an equality of misery, throughout the republic” (2:1:26-7, 2:2:166). After the release of Williams and her family from captivity in November 1793, Williams’s personal danger escalated as excerpts of her accounts from France appeared in British newspapers read by Robespierre’s committee of public safety in Paris, or, as Williams called it, “the committee of public extermination” (2:2:5). Her life in peril, Williams escaped to Switzerland in June 1794, a destination that afforded materials for the text in which she most acutely displays her knowledge of natural history.

\[235 \text{ Kennedy 111.}\]
“Helen Williams is turn’d to Stone”

When Williams escaped to Switzerland, she did not travel alone. Almost as scandalous to British critics as Williams’s political involvement in France were rumors of her relationship with the British reformer and entrepreneur, John Hurford Stone. Seized letters from Stone to his brother, William, in Britain raised suspicion of treason, eventually resulting in William Stone’s trial and acquittal in 1796; and letters from Williams and J.H. Stone purportedly intercepted en route to Joseph Priestley in America added fuel to British anti-Jacobin propaganda by predicting a French invasion of England and cheerfully informing Priestley “that our OLD COUNTRY is now the only one left to struggle against the French Republic, and left under every disadvantage that every friend to her real welfare would wish.” In addition to her patriotism, Williams’s close friendship with Stone called into question her virtue as well. Although Stone’s wife divorced him in Paris earlier in 1794, rumors spread of an adulterous affair, exemplified in a gossiping letter from Hester Thrale Piozzi, once a friend of Williams, to Penelope Pennington on 17 February 1795: “The Rival Wits say that Helen Williams is turn’d to Stone, and tho’ she was once Second to nobody, she is now Second to his Wife, who it seems was not guillotined as once was reported; but remains a living spectatress of the Political and Impolitic Revolutions.” Clearly sardonic in its intention, the pun on “Stone” figures Williams both as an adulteress and as exhibiting, as James Boswell accused, an unfeminine hardness of heart in supporting a revolution of such gruesome

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237 Piozzi-Pennington Letters at Princeton University; see Jessica Damián, “Helen Maria Williams’s Personal Narrative of Travels from Peru (1784) to Peruvian Tales (1823),” *Nineteenth Century Gender Studies* 3.2 (Summer 2007), paragraph 5.
atrocities, thus denigrating her reputation as a poet of sensibility. Although Williams cared deeply for Stone and the two co-habited until his death in 1818, she always asserted that their relationship remained honorable. Still, the statement that “Williams is turn’d to Stone” puns more intriguingly than Piozzi or the “Rival Wits” could have known at the time as, during her six months in Switzerland, Williams displays her fascination with mineralogy and the developing science of geology.

Although Williams escaped from France in 1794, she published her *Tour in Switzerland* in 1798, after Robespierre’s overthrow and her return to Paris with hope that Napoleon’s empowerment revived principles of liberty in France. In her *Tour*, Williams thus places “the present state of the governments and manners” of Swiss cantons in a less favorable light than “the present state of Paris,” but admires Switzerland’s landscape while recounting the trek she and her fellow-travelers pursued through the Alps and displays impressive knowledge of the mountains’ mineral stores and geological processes. In addition to frequent stops “to botanize” the “rich variety of herbs and delicate mountain-flowers,” whose common names she sometimes provides, Williams demonstrates her ability to identify rock specimens, explaining that “[t]hese mountains are rich mines for mineralogists” (2:3, 1:184). Yet, just as Williams modestly disclaimed her obvious knowledge of politics in *Letters*, she similarly protests ignorance of mineralogy while evidencing acumen in identifying and discussing specific rocks, including “quartz, mica, and schorl.” Cautious of remaining within the proper bounds of women’s scientific knowledge, Williams describes mineralogical discourse as “not being

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238 Kennedy 99-100.
perfectly intelligible to me” and thus distinguishes herself from the “naturalists” of her party, who “marched off to examine whether an adjoining mountain had most strata of white felt-spar or green granite,” again countering her supposed lack of knowledge with technical specificity (1:184-5). Her struggle to maintain a sense of feminine propriety while engaging with mineralogy becomes explicit when visiting an Abbot whose abode functions as a sanctuary for numerous French emigrants, including two nuns who repay his kindness with their creations of various artificial flowers. When the Abbot shows Williams both his collection of these flowers and his collection of minerals from the surrounding mountains, Williams observes of the mineralogical collection that “many of the specimens were rare and curious,” and explains that “as a female the Abbot ought to have given me a nosegay of flowers, but, thinking probably the present more portable, he presented me with two very fine specimens of the purest rock-chrystal” (2:105).

Although some British conservatives disapproved of women’s study of botany, Williams recognizes the knowledge of flowers as more acceptably feminine than that of mineralogy and geology which, as David R. Oldroyd states, “was considered a quintessentially manly or sportsmanlike kind of science.”

While, in the main text of her Tour, Williams hesitates to trespass too noticeably against feminine decorum in relation to natural history, as an appendix, she offers a more minutely scientific study of the Alps and Alpine glaciers and their role in contemporary geological theories. She translates Louis-Francois Ramond, baron de Carbonnieres’s “Observations on the Glacieres, and the Glaciers” and provides her own commentary on mineralogy by translating and annotating the work of Louis-Francois Ramond, baron de Carbonnieres. While Williams'sprimary focus is on natural history and botany, she also engages with mineralogy, particularly in the context of her visit to an Abbot whose collection of minerals she admires. Her appreciation of the Abbot's collection and her subsequent interaction with the minerals reflect a broader engagement with the scientific world of her time, which included a mix of botany and mineralogy.

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240 David R. Oldroyd, Thinking about the Earth: A History of Ideas in Geology (Cambridge, Mass.: Harvard UP, 1996) 134. However, as Noah Heringman notes, there were certainly women interested in the earth sciences, and “Arguably the most fashionable woman in England, Georgiana, the Duchess of Devonshire, became a life-long devotee of mineralogy while on a continental tour in 1793,” Romantic Rocks, Aesthetic Geology (Ithaca: Cornell UP, 2004) 16.
this scientific treatise. In addition to his work as a botanist and geologist, Ramond became an elected deputy of Paris in 1791, where he tried to calm Jacobin enthusiasm but was forced to flee to the Pyrenees for his life in August 1792. Williams and Ramond thus shared similar political sentiments and lucky escapes from the guillotine, and the two likely met sometime between 1790 and 1792 in Paris. They certainly corresponded, as Williams proves by footnoting an excerpt of a personal letter from Ramond containing his most recent geological findings.

In augmenting Ramond’s work with her own footnoted observations, Williams extends Ramond’s notes so that, at times, it becomes difficult, if not impossible, to distinguish her scientific interjections from his without comparison to Ramond’s original edition. The three longest footnotes to Williams’s translation of “Observations” belong, in part or in entirety, to Williams. The first of these comprises her excerpted correspondence with Ramond, not only updating his research, but also legitimizing her geological dexterity (2: 284-5). By establishing herself as a scientific correspondent of Ramond, Williams illustrates the original author’s confidence in her ability to translate his work with precision, and confirms that she possesses sufficient knowledge of geological phenomena to discuss the subject with geologists themselves.

Ramond’s argument in “Observations” dramatizes a dispute between two prevailing theories of the formation of the earth, pitting the so-called Neptunists against the Plutonists or Vulcanists, and applying that dispute to the Alps in particular. Ramond associates Neptunism’s water-based formation of the earth, in which “the seas were able

to maintain themselves for a series of ages at more than double the height which has been commonly granted,” with the theories of Horace Bénédict de Saussure (2:287). The heat-oriented Plutonist/Vulcanist “hypothesis of that conflagration of the earth, which kept it so long in a state of liquefaction,” he associates with the system of Buffon (2:287). In reality, Buffon’s ideas about the earth’s formation partook of both the “aqueous” and the “fiery” sides of the debate, but his theory of the original “liquefaction” or molten state of the earth had important implications, as we shall see, for subsequent geological thought. Significantly, whereas Ramond draws on Buffon to exemplify Vulcanism, Williams, writing eleven years after Ramond, is indirectly influenced by a more current proponent of the theory, James Hutton. Chiefly concerned with the idea of the earth’s central heat and its agency in the globe’s past and future changes, Hutton has been called “the founder of modern geology”\(^\text{242}\); he published his *Theory of the Earth* in 1788, and a much expanded version in 1795. Whether or not Williams read Hutton’s texts, she certainly received his ideas from another scientific source, Erasmus Darwin, Hutton’s friend and correspondent, who cites Hutton’s ideas in his *Economy of Vegetation* (1791), the first part of his long scientific poem, *The Botanic Garden*.\(^\text{243}\)

Williams addresses Darwin’s use of Huttonian thought in her second interjected footnote to Ramond’s text. Analyzing different theories explaining the colder climate found in higher altitudes, Ramond observes that “Some who attribute to the earth an *absolute* heat…suppose that the mountains, from being insulated masses distant from the central focus, are subject to a greater loss of internal fire” (2:291). While Ramond


identifies no adherents to this theory, Williams cites Darwin’s *Economy of Vegetation*, with which women writers less frequently engaged than with the more botanically-focused second part of *The Botanic Garden, The Loves of the Plants*. Perhaps the fact that Darwin quotes Williams’s *Letters from France* in a footnote to his second Canto aided her confidence in addressing his broader study of the earth in *Economy of Vegetation*, where Darwin highlights the importance of understanding geological and meteorological phenomena that affect botanical species. Quoting from Darwin’s prose notes on springs and on glaciers, Williams relates that, for Darwin, “the primary cause, why the summits of mountains are much colder than the plains is, their being in a manner insulated, or cut off from the common heat of the earth, which is always forty-eight degrees, and perpetually counteracts the effects of external cold beneath that degree” and that “the snow which lies in contact with [the earth] is always in a thawing state…hence, in Italy, considerable rivers have their source from beneath the eternal glaciers, or mountains of snow and ice” (2:291-2). However, unconvinced by Darwin’s explanation, Williams challenges him to elucidate his Huttonian view.

For Williams, Darwin’s interest in the earth’s central heat causes him to miss inconsistencies in his theory. Desiring further proof for Darwin’s hypothesis, she questions “how, since the summits of the higher Alps are insulated, and cut off from the action of the central fire, it could melt, by its heat, the eternal glaciers into considerable rivers” (2:292). Clearly, Williams is skeptical of Darwin’s narrative detailing the geological processes responsible for glacial melting and climatic alterations in different altitudes.\(^{244}\) Shifting her critique to verse, a more acceptably feminine medium, she

\(^{244}\) Earlier in *Economy of Vegetation*, Darwin provides additional causes for the cooler climate in mountains, but these would not alter Williams’s critique regarding the earth’s ability to melt the glaciers.
continues to question Darwin’s assertion while displaying her own geological knowledge. Playfully justifying her poetic response to *The Economy of Vegetation*, Williams elucidates the dire consequences of Darwin’s devotion to “Nymphs of Primeval Fire” (that is, Huttonian Vulcanism) amidst the Alpine glaciers, for now “The modest, snow-mantled nymphs are not only jealous of [Darwin’s] neglect, but piqued at his calumnies” (2:292). She then provides her thirteen-stanza poem, “The Complaint of the Goddess of the Glaciers. To Dr. Darwin,” in the footnote. Reversing Darwin’s technique of filling extensive footnotes with scientific, prose explanations of his imaginative poetry, Williams includes her poem as a long footnote, crowding out Ramond’s scientific prose. Williams also draws on Darwin’s poem in creating this new feminine force, “The Goddess of the Glaciers,” to contrast his presiding deity, the Goddess of Botany.

In Williams’s poem, the speaker recounts that the “Glacier-Goddess” approached her on “the Alpine cliff” and “Breath’d the deep sorrows of her beating breast” (ll. 1, 4, 12). Recognizing the speaker as a “Native of that green isle, where Darwin waves / His magic wand o’er Nature’s vernal reign,” the Goddess charges her with revealing to Darwin the natural mysteries contained in the Alps. Highlighting her home-ties to Britain marks Williams’s subtle and strategic attempt to reconcile with a British audience that often accuses her of treacherous French sympathies. Acknowledging Darwin’s Rosicrucian investigation into the four elements of air, earth, fire, and water, the Goddess stresses the importance of “new marvels” and “treasures” offered by her frigid “realms” (ll. 18, 20). These “treasures” are economic as well as intellectual, referring to mineral stores in “caverns dark / Where chemic nature mystic wealth distills,” and, again indicating the inadequacy of Darwin’s note on the origin of Alpine mountain “Springs,”
the Goddess offers to instruct Darwin by “unlock[ing] the rivers viewless source”—“each new-born spring” of water and help him follow “the printless pathway of the secret rills” (ll. 43–4, 39–40, 42). Williams thus brazenly patronizes Darwin by proposing (through the Glacier-Goddess) to educate him in scientific matters.

Correcting misperceptions of herself, Williams’s Goddess cites belligerent lines from Darwin’s poem that demonize agents of the cold, asking, “Ah, why a vestal to a ‘fiend’ transform” (l. 25)? In Economy of Vegetation, Darwin envisions a natural war between cold agents and his Goddess of Botany, who “calls her hosts to arms,” ordering her nymphs to “unite” and to

Call your bright myriads, trooping from afar,
With beamy helms, and glittering shafts of war;
In phalanx firm the FIEND OF FROST assail,
Break his white towers, and pierce his crystal mail (Canto 1, ll. 437–40).

In the context of a poem ultimately about botany, Darwin unsurprisingly here depicts frost as a “fiend.” He notes that “[t]he principal injury done to vegetation by frost is from the expansion of the water contained in the vessels of plants….which are distended and burst,” ending in the plants’ destruction (54). Williams, on the other hand, seeking to venerate this frigid power, converts Darwin’s masculine “FIEND OF FROST” into her feminine Glacier-Goddess who assumes the role of wounded virtue. Both proud and seductively vulnerable, Williams’s Goddess supplicates Darwin to “Come not in hostile garb!—with softer art, / With dearer power, my yielding spirit seize, / Wake thy rich lyre, and melt my gelid heart / With incense sweeter than the western breeze” (ll. 33–6). Yet,
she also assures him that the hand beckoning him “impels / The rushing Avalanche” and can “transfix thee numb’d, in icy cells” (ll. 29-30, 31).

In the end, this display of feminine knowledge and power fails to attract Darwin, and the Glacier-Goddess’s illumination of “new marvels” stalls out, mid-line, as she suddenly realizes that she’s lost, or rather never had, his attention, lamenting, “For thee—but ah, my pensive form he flies / For nymphs of golden locks, and florid hue!” (ll. 49-50). Williams’s speaker concludes the poem with a sympathetic last look at the Goddess, who then “wept, and folded in a cloud, withdrew” (l. 52). The poem’s playful elements bring a light touch to Williams’s depiction of female expertise rejected by a male figure of accepted scientific authority. Darwin’s dismissal of a woman’s instructive efforts in science, as portrayed by Williams, reminds that his own poem confined women to imaginative objectification, conflating them with nature (particularly flowers), subject to his study and interpretation. Williams’s poem underscores the hypocrisy in this gendered structure of knowledge where, when the tables are turned and women/nature attempt to educate Darwin, he ignores them. Williams chastises Darwin for not attending more carefully to these cold regions, but his neglect affords her the opportunity to redress these subjects and to participate in the poet-naturalist mode, making her own scientific assertions and queries, and challenging Darwin to reconsider or at least explain the seeming contradictions in his theory of what causes glaciers to melt sufficiently to form “considerable rivers” (2:292).

commend Miss W.’s translation of it, which is neither elegant nor accurate, and is sometimes unintelligible” (139). Depicting her as incompetent in the realm of science, he relegates her to that of literature, indicating that “[s]he makes amends for these defects…by an address from the Glacier Goddess to Dr. Darwin” (139). According to the critic, Williams’s “vigour of fancy” disqualifies her from both science and politics, and “Politics seem to be Miss W.’s favourite science, but it is not the subject in which she is the best qualified to excel” (140). In her *Tour*, Williams suggests that Swiss cantons would benefit from a revolution under the auspices of France. The British critic responds with an unlikely lumping of Williams with Burke, and states that “poetical politicians” are “objectionable” “since all sound moral and practical reasoning, to which the science of politics eminently belongs, is totally incompatible with the giddy flights of an unrestrained and impassioned fancy” (140). Insisting on the “incompatibility” of literature with science or politics and refusing to follow the radical thoughts of this “female reformer,” the critic finds her “too often Gallic” and disapproves of her enthusiasm for democracy (140, 144). However, while most reviewers felt at odds with Williams’s politics, some, like the critic from *European Magazine*, admit that Williams’s translation of “Observations” contains “many acute and philosophical reflections on the phenomena of nature” (391). Significantly, her contemporaries also would have recognized that her revolutionary politics resonate with geological discourse.

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246 *European Magazine* 33 (1798).
Geological Revolutions

The dispute between Vulcanism and Neptunism leads, in Williams’s translation of Ramond, to the debate between “catastrophism” and “uniformitarianism” to explain changes occurring on the globe since its formation. While, for Ramond, the key players in the debate remain Buffon and Saussure, Williams updates the controversy with respect to Hutton’s considerable influence, as absorbed through Darwin. Hutton formulated a cyclic theory of the earth, in which lavas are “successively poured forth and then eroded away, giving a landscape that was continually changing in detail through time, but remaining much the same overall.”247 Allowing for occasional cataclysmic “accidents,” Hutton’s ideas of gradual change and general uniformity came to be known as uniformitarianism, and countered the catastrophist notion that the earth’s changes owed primarily to periodic violent events followed by no subsequent change. Importantly, in discussing alterations to the earth, both sides of the dispute employed the term “revolution” as a signifier of crustal change affecting a whole region, especially in the formation of mountains.248 Diderot and d’Alembert’s Encyclopédie described geological revolutions as “the natural events by which the face of our globe has been and is still being continually altered in its different parts by [the action of] fire, air, and water.”249 Buffon’s writings, for instance, frequently refer to the “revolutions of the earth,” and he again bridges both sides of the debate, attributing the present state of the earth to

247 Oldroyd 135.
248 In the eighteenth century, the term “revolution” could be problematic since, especially prior to the French Revolution, it could refer to either a cyclical or non-cyclical notion of change, or even an ambiguous combination of the two. See I. Bernard Cohen, Revolution in Science (Cambridge, Mass.: Harvard UP, 1985) 208-9.
249 Quoted in Cohen 206.
constant, yet directional (non-cyclical) change, and a succession of “cataclysmic events” that produce geological revolutions.250

Of course, the term revolution had significant political, as well as geological, implications in the second half of the eighteenth century. According to Alan Bewell, “[b]y the 1790s, geology had assumed the status of the preeminent science of revolution,” a claim also made by Ramond.251 Buffon directly relates revolutions in political history to those within natural history, beginning his Epochs of Nature (1779), stating,

Just as in Civil History, one consults titles, searches for medals, and deciphers ancient inscriptions in order to determine the epochs of human revolutions and to establish the dates of human or civil events, so in the same way in Natural History, it is necessary to dig into the archives of the world, drawing ancient monuments from the entrails of the earth, collecting their debris, and gathering together in one body of proofs all the clews [sic] of physical changes which can enable us to regain the different ages of Nature.252

Cuvier would later echo this connection between sociology and geology; and, indeed, the debate over the concept of revolution often formed along political lines, so that British conservatives like Lyell could look to the Glorious or Bloodless Revolution as a very different model for change than the terror-filled revolution witnessed by Cuvier in France. At stake in the dispute between non-cyclical catastrophism, arguably now most associated with the early-nineteenth-century ideas of Cuvier, and the cyclical gradualism or uniformitarianism, that came to be associated with Lyell and other followers of

250 Cohen 206-7.
252 Quoted in Cohen 206.
Hutton, was the amount of time and degree of violence necessary for the earth’s alterations to occur.

Ramond, writing on the Swiss Alps, does not officially take sides in the debate but, in thinking about the mountains themselves, he seems influenced by the catastrophist notion of violent, formative change followed by long periods without alteration. He alludes to the great age of the earth “in which the records of nations occupies but an imperceptible space” in the history of nature and in “the epochas of its revolutions” (2:282-3). Yet, for him, the Alps are significant largely because he views them as exempt from change subsequent to their initial formation. In this he references “Saussure, [who,] in his excellent work on the Alps….has discovered, or thinks he has discovered, regular strata, in the primitive mountains; which consequently cannot be the work of a revolution” (fn. 2:287-8). The progress of glaciers, on the other hand, becomes a case study for the gradual changes occurring within the Alps as, in a footnote, Ramond explains that “the annual increase of the snows, however great, produces but an imperceptible increase in the Glaciers, and is sometimes annihilated by the caprices of the seasons” (2:314). He acknowledges that Pierre-Michel Hennin measured the advancement of “the Glaciers of Faucigny” as fourteen feet a year, and assures that this “enormous” rate is far from universal, enumerating the various factors that may modify a glacier’s progress (2:312). In the Alps, Ramond observes that avalanches and glaciers downward movement exposes excessive snows and ice “to the action of the heat” that soon melts and “re-establishes the balance between the loss and the increase” of snow (2:336-7). Taking up this notion of balance and of the gradual, rather than violent, progress of glaciers Williams expands Ramond’s footnote to encompass her ideal of
peaceful political revolution, and the notion that humanity can bring “improvement” by mitigating and shaping the changes or revolutions in nature.

In her *Letters from France*, Williams couched her enthusiasm for political change in the rhetoric of enlightenment improvement to nature, endorsed by naturalists such as Buffon. For him, a nation’s success in improving nature also denotes its degree of civilization, and such efforts to cultivate nature could even improve that nation’s climate.\(^{253}\) Alluding to Britain as a model for such reformation, Williams declares, “May Liberty, which for so many ages past has taken pleasure in softening the evils of the bleak and rugged climates of the North, in fertilizing a barren soil, in clearing the swamp, in lifting mounds against the inundation of the tempest, diffuse her blessings also on the genial land of France” (1:1:25). Later reacting with horror to the revolution’s degeneration during the Reign of Terror, Williams continued to associate it with geological and meteorological phenomena, adopting a darker analogy between France’s nature and nation, so that now “[t]he political clouds…gathered thick around the hemisphere: we heard rumours of severity and terror, which seemed like those hollow noises that roll in the dark gulph of the volcano, and portend its dangerous eruptions” (2:1:5). Her altered portrayal of political revolution displays a shift from the human potential to improve nature (and thus society) to an image of catastrophic natural forces outside of human control. Only after the fall of Robespierre does Williams, in her 1798 *Tour*, venture a hopeful vision of renewed revolutionary ideals and positive human control over political and natural realms.

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Enlarging this human capacity to change nature, Williams expands Ramond’s footnote on Alpine glaciers with a radical idea for achieving global climatic balance. Again drawing on *The Economy of Vegetation*, she relates that Darwin, alarmed by the increase of the ice at the northern pole, and on Swiss mountains, has pointed out an ingenious and beneficent mode of restoring the equilibrium of heat and cold by employing the fleets of Europe, now busied in devastation, in the more innocent occupation of navigating ice islands [icebergs] from the neighbourhood of the pole, to cool the feverish climates of the track of the sun” (2:314).

Darwin’s concern finds its source in Buffon’s well-known prediction of the globe’s eventual “refrigeration.” Conceiving the initial formation of the earth as a molten state, Buffon hypothesized that the earth has been in a gradual process of cooling that will continue until the earth becomes uninhabitable and dead. This prediction continued to haunt the second generation of Romantic poets, most famously in Byron’s “Darkness.” And Percy Shelley, gazing on the Alps, “these palaces of death and frost,” in the summer of 1816, wrote, in an often-quoted letter to Thomas Love Peacock, that he rejects Buffon’s idea of universal cooling, but easily envisions local devastation through the glaciers’ continual “increase of ice.” His sentiments are thus compatible with those of Williams, who eighteen years earlier witnesses evidence of glacial encroachments in the mountains’ surrounding vales but refuses to view this threat on a global scale, convinced instead by Ramond’s “endeavours to prove that the Glaciers of the Alps, like those of the

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254 For a more thorough treatment of Buffon’s theory, see Oldroyd 91.
Pyrenees, are not susceptible of any durable increase beneath the icy zone” (*Tour* 2:315).²⁵⁶

Although Williams repudiates Buffon’s and Darwin’s scientific anxieties about global cooling, she lauds Darwin’s suggestion that “the fleets of Europe” might contribute to universal improvement rather than bringing violence and death to humanity. Further extending Darwin’s idea of using icebergs to universalize the global climate, Williams notes that if Ramond had not disproved “the threatened progressive refrigeration of the globe from the increase of the ice on the Glaciers,” then, since “the continental armies are about to cease their work of death, [Darwin] might also have proposed their being engaged in the removal of the Glaciers of St. Gothard, or Mont Blanc” (2:314). Her revolutionary fervor shines through in her wish that “continental armies” would cease to war and pursue instead republican and humanitarian ideals, evinced here in the “ingenious and beneficent” thought of achieving a temperate universal climate. It is difficult to overstate the significance of this suggestion since, in the view of Enlightenment determinism, propounded by various naturalists and perhaps most famously by Montesquieu, a nation’s climate determines virtually every aspect of its subjects’ character, from temperament to sexuality. In this formulation, to universalize the climate would eradicate national differences, potentially producing a globally homogenous nature and nation, and thus a form of world-wide human equality within a truly singular human race.

Yet, if this hope for a uniform, global climate cannot be realized, Williams, through Ramond, points to a different kind of universalism, for the Alps, it seems,

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²⁵⁶ Shelley may differ from Williams in that he seems to reject Saussure’s assertion (largely adopted by Ramond) that glaciers “have their periods of increase and decay,” insisting instead on glaciers’ “slow but irresistible progress” (6:139).
contains all the climates of the globe. Whereas the leveling cosmopolitanism that Williams associated with Cook arguably aligns with Darwin’s call for a universal climate and thus absolute (in theory, at least) equality, Ramond additionally presents a cosmopolitanism consisting of a very different kind of universal nature. Within the Alps, Ramond perceives a microcosm of the world, explaining that “in a walk of a few hours you have felt the influence of all the seasons; seen the production of every climate; ran through the whole scale of vegetation, and compared the birds of Italy with those of northern lakes and continents,” including North America (2:345). He views these various species as analogues for humanity, finding “a family of birds, which is the emblem of our own; a republic of insects, which recalls our idea of our nations; their industry, their relations and antipathies” (2:334). In such correlations between natural and social behaviors and in describing this space as containing “the production of every climate,” Ramond’s works influenced the rising naturalist, Alexander von Humboldt, who later befriended and collaborated with Williams, and whose travels to South America would emblazon in the public imagination images of a mountain’s global nature.

**Chimborazo and La Physique Générale**

In 1807, Humboldt published in French his *Essay on the Geography of Plants*, the first effort to capture in print his 1799-1804 expedition to the Americas in which he was accompanied by the French botanist, Aimé Bonpland and received support from the Spanish monarchy. The account of this voyage, so rich in imaginative experience and scientific theories, collections, and measurements, would consume Humboldt’s private fortune and countless hours in composition until his death in 1859. Williams translated
into English two of Humboldt’s chief works, the shorter *Researches* (1814) and the seven-volume *Personal Narrative* (1814-29), both of which expound on these early explorations, but the *Essay* remained untranslated into English until this past decade.²⁵⁷

Like these later texts, the essay created a sensation in both scientific and literary circles, and became particularly recognized for its *Geography of Equatorial Plants: Physical Tableau of the Andes and the Neighboring Countries*, the work’s centerpiece.

Figure 1: Alexander von Humboldt’s *Tableau Physique* (1807), charting his various observations and measurements taken during his ascent of Chimborazo. Image from Wikimedia Commons.

This color profile of Chimborazo cuts away the entire right half of what was then thought to be the world’s tallest mountain to present a *tabula rasa* upon which to record the Linnaean, and some indigenous, names of plants growing at different altitudes. In his depiction of Chimborazo, Humboldt “provoked people to think about the globe in fundamentally new ways – as a single entity with interlinked biological, physical, and cultural properties varying latitudinally and altitudinally in a systematic and

Humboldt also sustains this attempt to encompass an understanding of universal nature through his *Personal Narrative*, laying the groundwork for what would later be termed “Humboldtian science” and characterize a major current in nineteenth-century natural inquiry. In conceptualizing his approach to nature, more than any other source, Cook’s scientific voyages most directly inspired Humboldt’s ambitions as an explorer, yet Humboldt also sought to differentiate himself from this admired predecessor. As Williams explains in her Preface to the *Personal Narrative*, by penetrating the interior of South America, Humboldt perceived new opportunities for fieldwork and scientific achievement that could not be accomplished through such “sea-expeditions” (vi).  

In his explorations, Humboldt wished to depart from the mode of collecting and identifying plants associated with Cook’s first voyage and Joseph Banks. Although he considered the steps of collecting and classifying to be necessary, he often contrasted “descriptive” natural history with his own emphasis on geographical variations of plants and of other physical parameters. Moreover, Cook’s voyages shaped Humboldt’s scientific drive on a personal level for, in 1790, Humboldt traveled from Germany to England and revolutionary Paris with Georg Forster, who had been a naturalist on Cook’s second voyage (1772-75), along with his father, Johann Reinhold Forster. The elder Forster promoted vegetation as the environmental aspect most directly affecting humanity, as the mediating component between physical phenomena (such as climate)

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258 Jackson, Intro, 4.
259 Alexander von Humboldt, *Personal Narrative of Travels to the Equinoctial Regions of the New Continent, During the Years 1799-1804, by Alexander de Humboldt, and Aimé Bonpland...Translated into English by Helen Maria Williams*. 7 vols in 6. (London, 1818; New York: AMS P, 1966); all quotes from this text are from volume 1. The botanist, Aimé Bonpland, shared Humboldt’s exploration, but Humboldt received the lion’s share of the glory.
and humans, a concept that influenced Humboldt’s thinking. Additionally, studying under a leading proponent of Neptunism, Abraham Werner, at the Freiberg School of Mines in 1791, Humboldt absorbed Werner’s critiques of contemporary geology as tending to be too speculative. Werner coined the term “geognosy” to distinguish his new scientific program that was to be firmly grounded in facts. Although Humboldt would later convert to Vulcanism, geognosy, as a type of new historical geology, influenced his program for plant geography, which required botany to give insight into the history of the earth.\textsuperscript{261} Humboldt strove “to create what he termed \textit{la physique générale}—the universal, synthetic science that would comprehend both the unity and the diversity of nature.”\textsuperscript{262}

Part of accomplishing his universalist form of scientific inquiry involved measuring everything possible, using the latest technical innovations in scientific instruments, a litany of which he carried with him through South America. Humboldt hoped that through this wide array of measurements, which could then be compared with similar measurements performed in other geographical locations around the globe, real linkages between apparently disparate phenomena would become more readily perceptible. One recent scholar represents Humboldt’s terrestrial physics as “natural history conducted in an observatory,” with numerous observatories located around the world.\textsuperscript{263}

In her Preface to the \textit{Personal Narrative}, Williams advertises Humboldt’s work as far surpassing that of his mid-eighteenth-century naturalist predecessors in South America, namely La Condamine, who had “written when geology did not exist as a


\textsuperscript{263} Dettelbach, “Humboldtian Science,” 299.
science, and the physical structure of [mountains] was yet unknown” (ix). His desire to discover harmonies in nature and the role to which he assigned aesthetics in natural inquiry demonstrates Humboldt’s alliance with the German Romantic movement, and Williams applauds his imaginative mode of science, affirming in her Preface that nature “speaks in a voice…well understood by the mysterious sympathy of the feeling heart” (vi-vii). In December 1821, Robert Southey admiringly remarked that “Humboldt is among travelers what Wordsworth is among poets. The extent of his knowledge and the perfect command which he has of it are truly surprising; and with this he unites a painter’s eye and a poet’s feelings.”

However, Southey’s surprise at Humboldt’s poetic style may owe much to the translation. Just as she interjected her own insights in her translation of Ramond, Williams also takes liberties in her translation of Humboldt, augmenting his “passionate enthusiasm.” A modern editor of the *Personal Narrative* states that Humboldt’s “French is curiously flat, scientific and modern” and “I was struck by the disparity between” Humboldt’s writing and Williams’s English translation (Jason Wilson lix). According to him, Williams’s “collaborati[on] with Humboldt” proves “faithful…except when Humboldt enthused—then his translator interpreted and exaggerated” (lix). Still, Humboldt must have approved of Williams’s interpretation of his works, for her Preface states, “I have been encouraged by the care with which [Humboldt] has read most of my pages, and corrected many of my errors” (xi). Her translation of the *Personal Narrative* inspired Charles Darwin’s own quest for scientific discovery, and accompanied him on the H.M.S. *Beagle*. Reading Williams’s interpretation, Darwin called Humboldt’s style a “rare union of poetry with science.”

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264 Qtd in Leask 290.
If Williams embellished Humboldt’s prose, she responded to the “poetry” already present in his method and ideas. For Humboldt, imagination and feeling “could, if suitably trained and applied, transcend the limitation of reason, penetrate beyond surface phenomena and, sensuously and intuitively, grasp the underlying unities of nature.” Humboldt strove to create a unitary vision of the world by synthesizing its various phenomena, and Chimborazo’s location near the equator offered a uniquely wide spectrum in which he could study and chart his global concept of plant distributions.

Despite Humboldt’s holistic goal of synthesis, recent historians of science argue that “Only in his pictorial representation” of Chimborazo in the Essay “did he truly succeed in consolidating an abundance of particulars into a few generalities” (31). In the essay’s “Preface,” Humboldt ambitiously demarcates his universalist claim, stating, “Here I bring together all the physical phenomena that one can observe both on the surface of the earth and in the surrounding atmosphere” (61). Within the essay, he calls for a physical tableau of European vegetation in the order of that he has created for the equatorial regions and declares Ramond the ideal naturalist to carry out such a task. As Williams had done in her work, Humboldt alludes to his private correspondence with Ramond who he finds “equally knowledgeable in geology and botany, possess[ing] both the art of observing well and the talent of speaking to the imagination” (94). In his botanical geography of the Americas, Humboldt, like Ramond, creates overt social analogies, used by the younger naturalist to comment on both governmental and scientific institutions.

Dividing plants into two classes with sociopolitical implications, Humboldt states that the class in the tropics “grows in an isolated and sparse fashion” while the other,

266 Nicolson, Introduction, Personal Narrative, xx.
which includes oaks and pines and is typical of temperate zones, “live in an organized society like the ants and the bees, and occupy immense terrains from which they exclude any heterogeneous plants” (65). In contrast to northern countries’ “socially organized” and seemingly xenophobic plants, the vegetation of the tropics is various, “less uniform” and interestingly appears to harbor a social ideal of democracy, for “no one plant dominates over the others” (65). He draws a number of comparisons between Europe and South America. According to him, while “the inhabitants of equinoctial regions know all the species” of plants due to botanical variety in the tropics, the plants that humans in northern lands “grow in their hothouses are mere shadows of the majestic equinoctial plants” and such species will “remain forever unknown to the Europeans” (75). Thus, the range of climates experienced on Chimborazo offers a unique kind of cosmopolitan atmosphere that cannot be achieved in Europe. However, Humboldt nevertheless gives primacy to European civilization if not to its nature, claiming that “the richness and perfection of the languages, the imagination and sensitivity of the poets and the painters give some compensation in Europe,” so that “enlightenment and civilization” bring “to us everything produced by nature in its various climates” and enable “us to communicate with all the peoples of the earth” (75). Describing his ascent of Chimborazo, Humboldt delineates how the forms of vegetation, mammals, birds, and insects change according to different elevations of the land. He compares the Andes mountain summits of Chimborazo and Cotopaxi, “one of the most active volcanoes in the Quito province,” with those of Europe, depicting on the tableau that Cotopaxi, for instance, “is almost five times the height of Mount Vesuvius” and that Mont-Blanc, the highest summit in Europe, reaches only to the lower limit of permanent snow in the
Andes (84). Yet, despite nature’s superior sublimity in the Americas, Humboldt echoes enlightenment ideas about racial determinism, denigrating the inhabitants of these tropical zones in comparison with northern (especially European) countries, famously stating that “The civilization of peoples is almost always in inverse relation to the fertility of the soil they occupy. The more difficulties nature presents, the more quickly mental faculties are developed,” for “the civilization of our species makes more rapid progress in the northern regions than amidst the fertility of the tropics” (133). However, Humboldt, passionately committed to open, democratic, and egalitarian possibilities for society, also acknowledged the devastation of European influence on the Americas through botany’s imperial implications, deploring that “Europeans introduced sugar, cotton, indigo, and coffee…new crops [that], far from being beneficial, increased the immorality and the misfortune of the human species. The introduction of African slaves…brought discord and vengeance to the New Continent” (134).

This relation between biology and socio-political concerns would have resonated with Williams, whose early poem, *Peru*, displays a similar treatment of natural history. Thematically, the lengthy poem critiques the Spanish conquests of Pizarro in South America and the subsequent enslavement of Peruvians, forced to labor in mines, for, “the unparalleled sufferings of an innocent and amiable People afford the finest subjects for true pathos, while their climate, entirely [sic] dissimilar to [that of Britain], furnishes new and ample materials for poetic description.” Footnoting South American zoological species introduced in her verse, Williams provides physical and habitational details about, for instance, pacos, vicunnas, and condors (4, 14). She characterizes the vanquished and enslaved Incas as analogous to the continent’s llamas, which “are neither

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dispirited by fasting nor drudgery, while they have any strength remaining; but, when they are totally exhausted, or fall under their burden, it is to no purpose to harness and beat them: they will continue striking their heads on the ground, first on one side, then on the other, till they kill themselves” (78). Williams calls for the end of this colonial oppression that misuses mineralogical and geological knowledge in her final footnote to *Peru*. Envisioning a revolution taking root in South America, she relates that “An Indian descended from the Inca’s [sic], has lately obtained several victories over the Spaniards, the gold mines have been for some time shut up, and there is much reason to hope that these injured nations may recover the liberty of which they have been so cruelly deprived” (94). Fourteen years later Williams updated the plight for freedom in South America in a footnote to her *Tour in Switzerland*, globalizing French revolutionary principles to report that,

> When in my poem on Peru, one of my earliest productions, I fondly poured forth the wish that the natives of that once happy country might regain their freedom….

> That revolution had not yet taken place, which *appears destined to break the fetters of mankind in whatever region they are found*, and which transforms what was once the vision of poetic enthusiasm into the sober certainty of expectation (1:127; emphasis mine).²⁶⁸

And, indeed, the French Revolution did help to inspire the struggles resulting, by 1825, in independence for all of continental South America.²⁶⁹

Identifying Humboldtian science as a revolution, Louis Agassiz enthused that Humboldt’s American travels “completely changed the basis of physical sciences as the

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²⁶⁸ Pratt 135.
²⁶⁹ Pratt 112.
revolution which took place in France about the same time has changed the social condition of that land.”

In 1821, Simón Bolívar, the anticolonialist leader and president of the newly-declared country of Gran Colombia called Humboldt “the new discoverer of America” and stated that “[h]e has done more for America than all the conquistadors together.” Ángela Pérez-Mejía, however, qualifies that “what Bolívar meant, and what is still echoed today, is that he led us out of ‘barbarity’ and toward the light of Europe” (58). She argues that this is problematic because Humboldt’s maps and knowledge of nature largely derive from information gleaned from native people of the lower classes who served as the traveler’s guides and are themselves made “analyzable and classifiable” within his work. The convictions of the French Revolution and Humboldt’s Enlightenment liberalism mask the occurrence of certain indigenous forms of oppression while altering relations with Europe, for throughout the colonies, native people “were fighting for their lands against the creoles, but in Humboldt’s text their political agency is forgotten” (70). As she notes, “Humboldt was a conqueror of knowledge, not of lands,” and the knowledge presented in his new geography made possible “the alliance between Europe and the creole class,” associating barbarism “with the native American ethnic groups, and civilization with the Caucasian races from whom the creoles were directly descended” (71). In the context of revolution’s terrifying aftermath in France, Humboldt’s work interestingly displaces concepts of barbarism and degeneration within Latin America and maintains European intellectual and industrial superiority.

270 Qtd in Jackson, Intro, Essay, 9.
271 Qtd in Ángela Pérez-Mejía, A Geography of Hard Times, 40.
In addition to these imperial issues, Humboldt’s two classes of plants in his essay on botanical geography gesture toward individualism in the midst of its cosmopolitan potential. He indicates that the tropics’ immense botanical variety provides insight into species formation, possibly revealing “some primitive forms, and whether the diversity of species can be considered to be an effect of the degeneration that over time transformed accidental varieties into permanent ones” (67). While the social vegetation of temperate countries can seem “monotonous,” the plants of the tropics are more “beautiful” and “majestic” and include species unique to equatorial climates, as well as those found in temperate zones, creating an inclusive space of global nature that nonetheless preserves (and even encourages through the formation of new species) individuality.

This interesting focus on individuality also marks a shifting dynamic within the professionalization of the natural sciences, moving from the eighteenth century’s mode of collaboration with amateurs in natural history to an individualism that Wordsworth abstracted as the “Man of science” who “cherishes and loves [truth] in his solitude.” In South America, where virtually no foreign or scientific exploration had been undertaken in over sixty years, Humboldt found the perfect opportunity to apply his approach to nature, and recognized that by modeling a new mode of scientific exploration, he modeled a new kind of naturalist. In the Personal Narrative, he contrasts the difficulty of his own voyage with the relative ease involved “When a government undertakes one of those maritime expeditions, which contributes to the knowledge of the globe,” with “no obstacle to the accomplishment of it’s [sic] purpose” (1). Alluding to Cook as the archetype of this kind of nationally-sponsored exploration, Humboldt makes light of the neutrality granted to Cook’s ships during the American Revolution, which earlier struck
Williams as an emblem of universal humanity (2). As a new kind of voyager, Humboldt views such “passports” and protection from “belligerent powers” as unknown luxuries while in quest of knowledge, for “Far different is the situation of a private individual, who undertakes a journey at his own expense into the interior of a continent, over which Europe has extended it’s [sic] system of colonization” (2). Directly addressing his cultivation of biographical interest as a new, independent, and intriguing scientific persona, Humboldt acknowledges awareness that “The curiosity of the public” is “oftener fixed on the persons of travelers than on their works” (2). Williams, in her Preface, emphasizes ways in which Humboldt resembles the ideal she earlier envisioned for Cook; hoping that science will still achieve a universal sense of humanity where the French Revolution has failed, she declares, “How often will posterity also turn from the terrible page of our history, to repose on the charm of a narrative, which displays the most enlarged views of science and philanthropy!” (vii-viii; emphasis mine). Despite Humboldt’s concern with holistic structures and the unity of the landscape, his brand of universalism is at odds with that which Williams associated with Cook. Interestingly, for Williams and other contemporaries, Humboldt’s blend of personal individualism and scientific universalism bears less comparison with Cook than with Napoleon Bonaparte.

“The Napoleon of Science”

Although Williams championed Napoleon in her Tour and there declared that “Buonaparte [sic] belongs to the world,” her opinion of him quickly changed (2:57). As Deborah Kennedy explains, Williams became disillusioned with Napoleon “when his image of greatness became tainted by his acts of self-aggrandizement, his militaristic
imperialist quest, and his systematic program of censorship, which eventually forced her
to stop writing.”272 By 1802, he had placed her house under surveillance and she
virtually stopped publishing original texts until after the Battle of Waterloo. In the
Introduction to her Poems on Various Subjects (1823), Williams recounts that she gained
Napoleon’s personal enmity when, in reaction to her “Ode to Peace,” commemorating the
treaty signed between the French and English at Amiens in 1801, he “pretended to be
highly irritated at the expression ‘encircled by thy subject-waves’, applied to England”;
to Napoleon, the phrase implied British naval superiority, “which he said was treasonable
towards France; but what he really resented was, that his name was not once pronounced
in the Ode” (xiii).273 Forced to spend a day and night in jail for this perceived slight,
Williams states that Napoleon reacted so strongly to her poem because “The ambitious
find time for everything, and while they appear to be wholly absorbed by great objects,
ever lose sight of the most minute if connected with their own egotism” (xiii).
Significantly, her definition of Napoleonic “egotism,” his ambition through a grand
scheme that never ignores particulars, is implicit in Humboldt’s scientific program.
Williams remarks in her Preface to the Personal Narrative that the “character of
[Humboldt’s] writings is the faculty he possesses of raising the mind to general ideas,
without neglecting individual facts” (ix).

Since Humboldt and Napoleon viewed themselves as personally and politically at
odds with one another, comparisons between the two may at first seem strange.
Napoleon suspected Humboldt of being a Prussian spy, and had little respect for the
naturalist’s work, a fact memorialized in his famously derisive words to Humboldt upon

272 Kennedy 154.
273 Helen Maria Williams, Poems on Various Subjects: With Introductory Remarks on the Present State of
Science and Literature in France (London, 1823).
meeting him for the only time in 1804: “So, monsieur, you collect plants? So does my 
wife.” Yet, comparisons between Humboldt and Napoleon flourished in the nineteenth 
century. Both men were born in 1769 and, while Humboldt’s quest for universal 
domination of nature generally appealed more to public sentiment than Napoleon’s quest 
for universal domination of nations, the strength of each man’s personality and global 
ambition prompted correlation. The Encyclopedia Britannica claimed for many editions 
that Humboldt’s fame in Europe was second only to that of Napoleon. If Napoleon 
could crown himself Emperor, Humboldt seemed, in Harriet Martineau’s words, the self-
made “Monarch of science.” Emerson called Humboldt “the Napoleon of travelers” 
who “marches like an army, gathering all things as he goes,” and another American poet, 
Henry T. Tuckerman, dubbed Humboldt “the Napoleon of science.” Oliver Wendell 
Holmes compares the two men in his poetic tribute for the centennial of Humboldt’s 
birth, “Humboldt’s Birthday: Bonaparte, Aug. 15th, 1769—Humboldt, Sept. 14th, 1769,” 
 Describing the naturalist as a “peaceful conqueror” achieving “bloodless triumphs.”
While Williams and Humboldt shared a political liberalism, support of the American and 
French revolutions, and life-long opposition to slavery, Humboldt’s inspiration of this 
rhetoric of conquest, even “peaceful” conquest, denotes what Williams recognized as a 
different kind of “connecting zone” than that envisioned in her tribute to Cook.

275 Sachs 380, fn. 17.
278 Sachs 380, fn. 17. Walls 310.
Williams’s short, personal poem, “To the Baron de Humboldt, on his Bringing Me some Flowers in March” (pub. 1823), describes a subtle but striking departure from the brand of humanistic science she celebrated in “The Morai.” To Humboldt she writes:

Sooth’d I receive the flowers you bring,
Whose charm anticipates the Spring;
Whose tints in vernal freshness vie
With plants beneath an austral sky,—
Those glowing plants that, long unknown,
Your travell’d science made our own:—
Bright gift! in lavish grace array’d,
Thy flowers have only bloom’d to fade,—
Their transient being soon forgot:
How far unlike the giver’s lot!

Williams’s poem stages an aesthetic rivalry between the “vernal” European flowers given to Williams by Humboldt and the “glowing,” “long unknown” flowers he “discovered” in South America. Her brief depiction of Humboldt’s science as a process of discovering, collecting, and making “known” botanical species sounds more like the naturalist-mode associated with Joseph Banks and the Cook voyages—exactly the mode of botanical study from which Humboldt sought to dissociate himself. Yet, if, in this regard, Williams tries to align Humboldt with Cook, she distances him from the humanism she attributed to the earlier explorer when she describes South American plants as possessions that “Your travell’d science made our own.” Since Williams distinguishes between European and South American flowers, the “our” of this poem clearly refers to Europe, so that
Humboldtian science contributes to the conquests making South American plants – and colonies – Europe’s own. Signifying Europe, the poem’s “our” paradoxically represents a form of exclusion rather than the universal inclusion Williams depicted in the Cook poem, where the islanders, too, were included in the “connecting zone.” There is no sense of equal exchange here, only uni-directional appropriation. When Williams assures Humboldt of lasting fame, it is not a fame that she envisions being sung in the oral histories of people indigenous to South America, as had been the case with Pacific islanders in her verse memorial to Cook. Humboldt’s “egotism,” his assumption of what Pratt describes as “a godlike, omniscient stance over both the planet and his reader,” registers a changed mode of science, different from the natural history that Williams earlier associated with republican values. However, these hints in the poem and in her Preface to the *Personal Narrative* mark the extent of Williams’s critique of Humboldtian science, and she arguably views these shifts in science as logical, and perhaps even necessary, reactions to France’s altered political climate.

**Toward the Professionalization of Science**

Williams’s introduction to *Poems on Various Subjects* of 1823 defends France against assertions in the *Edinburgh Review* regarding that nation’s “present degenerate State of Science and Literature.” She remarks that “The professors of science in this country [France] may indeed be safely left to defend themselves. The learned only are fit to be their own judges, and I know not what my eulogium could add to such names as those of La Place, Delambre, Hauy, Cuvier, Jussieu, Gay-Lussac, Arrago, Biot, Thenard,

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279 Pratt 124.
and many others worthy to augment the list” (xv). Yet, her praise also recognizes the difficulties French science faced in the recent, revolutionary years:

What, for instance, can be more noble and affecting than the conduct of Condorcet and Rabaut St. Etienne, at that period? who, while hors la loi, and certain, if their retreat were discovered, of being dragged without trial to the scaffold, pursued with the calmness of a superior nature the lofty speculations of philosophy, and left posthumous works, in which they disdained to make the slightest allusion to their own desperate situation, which for both terminated in death! (xv).

Whereas, the example of Cook allowed Williams to envision various nations, and France in particular, designating scientific thought as an international safe-harbor from political storms, the fallout of the Terror transforms science’s relation to politics. Without (inter)national protection—indeed, facing political persecution—the scientist seeks respite in his work. Williams admires these men’s “lofty speculations” in the midst of “their own desperate situation,” and their withdrawal from turbulent society helps to mark their “superior nature.” This veneration of working in isolation complies with the developing “cult of genius” in the early decades of the nineteenth century with the professionalization of both literature and science. Although now free of political persecution, some members of the younger generation of scientists Williams commends as belonging to “the new order of things” embraced this mode of individualism. Cuvier, for instance, strongly advocated specialized research and “viewed public interest as a possible danger to the advancement of science,” fearing that efforts to capture the public
imagination made naturalists imprecise in their method and descriptions. Humboldt arguably mediates between the collective, collaborative mode of natural history and professionalized science. He “gave lectures, organized meetings, wrote letters by the hundred, visited dignitaries, held forth tirelessly… in salons” like that of Williams, and believed that a history of the earth, a geology, could only be achieved by equipping the general public with precise and easy-to-read instruments, allowing them to participate in realizing his universalist form of scientific inquiry. His all-encompassing, comprehensive enterprise at once countered and helped inspire the division of science into more specialized disciplines. Although Humboldt’s personality and approach to nature highly influenced scientists throughout the nineteenth century, his popular appeal, especially to women readers, such as Williams, did not accrue everyone’s respect.

When Napoleon told Humboldt of his wife’s fascination with botany, he intentionally feminized natural history and the naturalist, emphasizing women’s interest in the field. Byron similarly discussed Humboldt’s discoveries’ effects on scientifically-minded women, writing in the fourth Canto of Don Juan,

Humboldt, ‘the first of travelers,’ but not
The last, if late accounts be accurate,
Invented, by some name I have forgot,
As well as the sublime discovery’s date,
An airy instrument, with which he sought
To ascertain the atmospheric state,
By measuring ‘the intensity of blue:’

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281 Pratt 117; Dettelbach, “Global Physics,” 283.
Oh, Lady Daphne! let me measure you! (4: 889-96)

Byron refers to one of the numerous instruments Humboldt carried through South America, the cyanometer, actually “invented” by H.B. Saussure, not Humboldt; it measures the color intensity of blue sky to indicate transparency and water-vapor levels. Byron’s final couplet, of course, satirizes the instrument’s capacity to measure the “intensity” of a bluestocking. For him, Humboldt’s mania for measuring, and natural history’s association with women, made the science laughable. In this climate of ridicule, efforts to reinvent natural history through professionalization and exclusivity of specialized knowledge sought to bar women while apotheosizing the isolated male scientist.

Williams never endorsed the masculinization of knowledge but, near the end of her life, disappointment with French politics reflects in her own shift away from early revolutionary fervor for universal humanism to appreciation of individualism. Republishing “The Morai” in her 1823 Poems, she adds a note explaining the poem’s original inclusion in Kippis’s Life of Cook. Grieving for this father-figure, Kippis, who died in 1795, Williams laments that, “Nothing, indeed, is better fitted to confirm our love and admiration of particular virtue, than experience of the world in general” (155). It is a sobering and startling statement to find at the end of a poem celebrating “the world in general,” that is, humanity “in general.” For Williams, “experience” teaches her to value individuals in particular, and to suggest that, as in science, in humanity, particulars require study and caution before being embraced as universals. This isolating gesture retreats from her youthful sentiments and echoes a trend in both science and literature toward a projected sense of individualism.
Yet, another woman writer warned against the dangers posed by the individual, solitary male scientist. If Byron mocks the feminization of natural history, Mary Shelley’s *Frankenstein* arguably more seriously satirizes science’s masculinization and the horrifying potential of discoveries (and even of procreation) in isolation; she thus reproves natural history’s divestiture both of women’s influence and of its collective, collaborative mode. My next chapter examines how Shelley’s later novel, *The Last Man* (1826), returns to these issues within a geological context to critique both Romantic individualism and scientific generalizations that destroy the domestic sphere.
Chapter 6

The Privatization of Geological Catastrophe in Mary Shelley’s The Last Man

For Mary Shelley and many of her contemporaries, the 1820s seemed an era of posthumous existence, having outlived the intense sociopolitical and literary exuberance of the previous decades. Following the political strife that so captivated Helen Maria Williams in the previous chapter, the 1820s marked a decade that E.P. Thompson describes as “strangely quiet – a mildly prosperous plateau of social peace.” For many writers surviving from the revolutionary and Napoleonic eras, this “plateau” of social stability brought a pervasive melancholia, a feeling of lost potential that reflects directly in the function of women’s scientific literature. Whereas the previous generation of women writers employed natural history as a means of transcending the private sphere to participate in debates of national interest, Mary Shelley exemplifies a shift toward using science to reinforce, not transcend, domestic life, and expresses that science in stylistic terms more closely resembling the second generation of male Romantics. Departing from the overtly technical, scientific lexicon that women of my earlier chapters employed to gain literary and cultural authority, Shelley displays a more subtle, imaginative refraction of a scientific theme in her focus on species extinction.

According to Mary Shelley’s third novel, The Last Man (1826), we have now entered the final century of humanity’s existence. In the text’s concluding pages, her main character, the sole human survivor of a devastating pandemic, carves into stone the inscription, “2100, the last year of the world!” The novel, however, offers no indication that this marks the last year of the world, merely the last year of humanity.

282 Mary Shelley, The Last Man (New York: Bantam, 1994; 1826) 496. Henceforward, quotations from this novel will be cited in the text.
The geological, zoological, and vegetational earth, all of nature, continues on, unaffected by humankind’s extinction. Shelley’s work thus differs from poems such as Byron’s “Darkness” (1816) and Thomas Campbell’s “The Last Man” (1823) that earlier depicted the annihilation of humanity as apocalyptically corresponding with the death of the sun and of every living thing on the earth. As some critics suggest, these images of cataclysmic destruction dramatize theories espoused by the naturalists Georges-Louis Leclerc (comte de Buffon) and Georges Cuvier. At the end of the eighteenth century, a time when most naturalists rejected the notion that God would allow a species of His own creation to be eliminated, Cuvier established extinction as incontrovertible fact and attributed its cause to past instances of sudden, catastrophic changes on the surface of the globe. His work on fossils influenced geological thought throughout the early decades of the nineteenth century.

Yet, despite Shelley’s focus on the Cuvierian subject of extinction and her acclaim as the Romantic era’s woman writer most famously associated with science through her first novel, *Frankenstein* (1818), modern critics strangely disregard science in *The Last Man*. Concentrating on issues of empire, politics, gender, and disease, recent scholars appear wholly perplexed by the text’s numerous natural disasters that accompany the plague in its movement across the globe.

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Cuvier’s influence on the last-of-the-race genre refuse to consider Shelley within a Cuvierian context because, in Shelley’s conception, humankind ends, so to speak, with the whimper of plague, not the bang of geological catastrophe. However, I argue that Shelley’s portrayal of humanity’s extinction remains consistent with Cuvier’s directional notion of geohistory. In Cuvier’s thinking, the magnitude of catastrophes produced by the earth gradually weakens over the course of time, and Shelley’s novel acknowledges that enervation through her representation of natural disasters and by radically shifting geological catastrophism into the “world” of the domestic, the individual, the private. Through this privatization, this microcosmic shift, Shelley critiques both scientific generalizations such as the homogenizing notion of species extinction that ignore the fate of individuals, as well as the opposite extreme – Romantic interiorization – that takes individualism to the point of isolation. Building these warnings into the concept of lastness, where the domestic becomes important through its absence, Shelley creates a geological framework in which the extinction of even a single life constitutes apocalypse.

Re/Constructing the Past

For Mary Shelley, in the years immediately preceding publication of The Last Man, personal loss seemed a way of life. Between 1814 and 1819, she buried three children, having only one child survive to adulthood. Her husband, Percy Shelley, drowned in July 1822 and, already writing her novel, the night before learning of Byron’s

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death in 1824, she famously recorded in her Journal, “The last man! Yes I may well describe that solitary being’s feelings, feeling myself as the last relic of a beloved race, my companions, extinct before me.” Her presentiments of the “coming event” of Byron’s death signify a kind of prophetic dread that pervades the emotions of characters in her novel. Shelley acknowledged her autobiographical intention of recreating in this book Percy Shelley as Adrian, the Earl of Windsor, and Byron as Lord Raymond. She casts herself as a combination of the mournful widow, Perdita, and Lionel Verney, who functions as narrator and epitomizes loss and isolation as the last man. Projecting this “beloved race” into an imagined future, Shelley begins the main plot of her novel shortly after England’s non-violent transition from monarchy to a new republic near the end of the twenty-first century.

Although other scholars note the political significance of setting this new republic three hundred years following the French Revolution, Shelley also reflects her era’s preoccupation with geological revolution. In the early nineteenth century, Cuvier, as the world’s foremost authority in the new fields of paleontology and comparative anatomy, situated the extinction of past species within violent “revolutions” or changes of the earth. Shelley’s self-identification as “the last relic” of an “extinct” race formulates her feelings of personal loss in relation to contemporary geological concerns. Significantly, although the Shelleys earlier knew of Cuvier’s work, they ordered his masterpiece of fossil studies, Recherches sur les Ossemens Fossiles (1812), only a few weeks before Percy’s death; its arrival, then, would nearly accompany Mary Shelley’s loss of her husband, a

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bereavement on which she dwells obsessively in her Journal during the years of writing her roman à clef.\footnote{The Letters of Percy Bysshe Shelley. 2 vols. ed. Frederick L. Jones (Oxford: Clarendon P, 1964) 2:458-9.}

In her “Author’s Introduction” to the novel, Shelley preserves the illusion of reality by explaining that her perception of future events results from an excursion, corroborated by her personal letters and Journal, to “Naples in the year 1818,” during which “On the 8\textsuperscript{th} of December…my companion and I crossed the Bay, to visit the antiquities which are scattered on the shores of Baiae” (1). In the Introduction’s recreation, Shelley excludes her step-sister, Claire Clairmont, who joined the Shelleys in the actual excursion, and instead makes Percy her sole companion amidst these ruins and the recently excavated sites of Pompeii and Herculaneum. Shelley relates that “at length we entered the gloomy cavern of the Cumæan Sibyl,” where they purportedly discover the ancient Sibyl’s prophecies, her Sibylline leaves: “piles of leaves, fragments of bark, and a white filmy substance,” all “traced with written characters” in various languages, communicating the story of humanity’s extinction (3-4). Alluding to Percy’s death, Shelley reveals that her “selected and matchless companion” is now “lost to me,” and explains that she finds consolation “in deciphering these sacred remains,” the Sibyl’s prophecies, and “scattered and unconnected as they were, I have been obliged to add links, and model the work into a consistent form” (4-5). Indeed, she declares, “Sometimes I have thought, that, obscure and chaotic as they are, they owe their present form to me, their decipherer” (5).

Setting her cave exploration among the “antiquities” of Naples, the “sea covered fragments of old Roman villas,” the ruins of an extinct civilization, Shelley intimates the
common contemporary analogy between studies of past epochs of the earth and of past civilizations, between the naturalist and the antiquarian. Importantly, one of the best-known usages of this analogy occurs in the opening of Cuvier’s “Preliminary Discourse” to *Ossemens Fossiles*, where he describes fossils as “monuments” and explains that “As a new species of antiquarian, I have had to learn to decipher and restore these monuments, and to recognize and reassemble in their original order the scattered and mutilated fragments of which they are composed.”289 Through this process of deciphering and reordering “scattered and mutilated fragments,” the naturalist recovers the earth’s historical narrative. Cuvier’s antiquarian rhetoric, likening the study of comparative anatomy to that of fragmented monuments, connects not only with Shelley’s chosen setting among the ruins in Naples, but also, of course, with the Sibylline leaves which she must, like Cuvier, decipher and “reassemble in their original order” (5).

Cuvier’s mode of deciphering nature largely departed from that of his scientific predecessors. At a time when most naturalists rejected the idea, he proved the extinction of certain species and presented fossils as key to discerning events of the earth’s geological past. In his 1796 landmark paper on the subject, he employed comparative anatomy to demonstrate that African and Indian elephants constitute different species, and that the fossilized remains of mammoths belong to a third, separate species, while the “Ohio animal” (or mastodon) composed an entirely separate genus. Cuvier determined that the greater their depth in the earth’s strata, the greater the age of recovered fossils, and proposed that by examining and reconstructing “these monuments,” the various revolutions or changes of the globe may be assessed. He suggested that the extinction of

the mammoth and mastodon, as well as fossil species of, for instance, rhinoceros, bear, deer, and crocodile, with no living analogues, “prove the existence of some world previous to ours, destroyed by some kind of catastrophe.”

Following Buffon in claiming that a succession of cataclysmic revolutions divided the history of the earth into six epochs or periods, equated with the “days” of creation in Genesis, Cuvier viewed these revolutions as geological processes by which dry land emerged from the sea to form new continents while old continents sank beneath sea level. An advocate of species fixity, he asserted that each revolution forced an affected set of the earth’s fauna into extinction, only to be replaced by a “new” group through migration from a different part of the globe, determining that presently extant species represent populations of humans and animals that survived from the previous continents, now beneath the sea.

Presenting fossil reconstructions as crucial to understanding the earth’s past worlds, Cuvier boasted that, through his knowledge of comparative anatomy, he could rebuild an entire fossil skeleton from a single bone, an important skill since oftentimes only a few bones or fragments survived from the original anatomical frame. Similarly piecing together “scattered and mutilated fragments,” Shelley’s reconstruction of Sibylline prophecies represents an act analogous to that at the center of her first and more famous novel, which some paleontologists viewed as a horrifying correlative to their work. While erecting the fossilized remains of an Iguanodon, the geologist, Gideon Mantell, found himself, “like Frankenstein,…actually appalled at the being which rose

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beneath his meditations."^{292} Shelley’s material depiction of pestilence in *The Last Man*, leaving a multitude of unburied human corpses scattered over the earth to decompose and perhaps become fossils themselves in time, led a critic from *The Monthly Review* to complain, “It is not a picture which she gives us, but *a lecture in anatomy*, in which every part of the human frame is laid bare to the eye.”^{293} The visionary power associated with Cuvier’s comparative anatomy, his recovery of horrific beings and events from the earth’s history, creates a context in which Shelley’s reconstructed fragments from the past envision an equally horrifying future for humanity.

**Byron, Caves, and Geohistorical Prophecy**

Mary Shelley’s familiarity with Cuvier’s work as a means to understanding past and future worlds traces not only to her readings of *Ossemens Fossiles*, but also to the poetry of Byron, and especially to his closet drama, *Cain: A Mystery* (1821). Interestingly influencing Shelley’s novel, Byron’s *Cain* exemplifies geohistory’s visionary capacity and challenges geologists’ theological claims, illuminating scientific controversies that must be explored in order to recognize their impact on Shelley’s text. In publishing *Cain*, Byron acquired the enmity of many geologists for exposing Cuvier’s ideas to attack from biblical literalists. Byron’s “Note” to the preface emphasizes geological support for scripture, explaining that

> The author has partly adopted in this poem the notion of Cuvier, that the world had been destroyed several times before the creation of man. This speculation,

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^{293} *The Monthly Review* n.s. 1 (March 1826): 335; italics mine.
derived from the different strata and the bones of enormous and unknown animals found in them, is not contrary to the Mosaic account, but rather confirms it.\textsuperscript{294}

However, in the drama’s ensuing dialogue, Byron’s Lucifer employs geological findings as a goad, encouraging humans to question and turn from God, and thus puts geology on a par with blasphemy. Conjuring up Cuvier’s theory of successive revolutions of the earth, Byron’s Lucifer refers to God alternately as “the Destroyer” and “the Maker,” for “he makes but to destroy” (1.1.265-7). Revealing to Cain “the history / Of past, and present, and of future worlds,” Lucifer distinguishes Adam as only the first of the latest race of earth-dwellers, and explains that “mightier things have been extinct / To make way for much meaner than we can / Surmise” (2.1.24-5; 2.1.159-61). To prove this point, in a visionary transport to Hades, Lucifer shows Cain a multitude of “phantoms,” rational beings “much superior” to humanity, whose “earth is gone for ever— / So changed by its convulsions, they would not / Be conscious to a single present spot / Of its new scarcely harden’d surface” (2.2.69; 2.2.120-3). While Byron assures readers that the existence of pre-human rational beings is “of course, a poetical fiction,” his Lucifer also unfolds to Cain images more firmly grounded in the reality of paleontology in, for instance, mammoths and perhaps the newly-discovered plesiosaurus, “yon immense /

\textsuperscript{294} \textit{Lord Byron: The Major Works}. Ed. Jerome J. McGann (Oxford UP, 1986, 2000) 882. In Britain, Cuvier’s “Preliminary Discourse” was quickly translated into English in 1813 by Robert Jameson, who added a preface and additional notes, as well as a new title, to make Cuvier’s work align more closely with biblical scripture. In particular, Jameson’s highly successful editions of Cuvier’s text associated the earth’s most recent revolution with Noah’s Flood, a suggestion eagerly accepted by many British geologists, though not Cuvier’s intention. Much more than on the continent, British geologists felt pressure to interpret their studies of the earth in ways that would uphold scriptural authority. See Dimitri Karkoulis, “‘They Pluck’d the Tree of Science / And Sin’: Byron’s Cain and the Science of Sacrilege,” \textit{European Romantic Review} 18.2 (April 2007) 273-81; and O’Connor, “Mammoths and Maggots: Byron and the Geology of Cuvier,” \textit{Romanticism} 5.1 (1999) 26-42.
Serpent, which rears his dripping mane and vasty / Head ten times higher than the
haughtiest cedar / Forth from the abyss” (2.2.190-3).

For Cain, rather than inspiring a sublime feeling of awed devotion to God, “The
immortal, the unbounded, the omnipotent, / The overpowering mysteries of space— / The
innumerable worlds that were and are” overwhelm him with revulsion at the annihilation
of so many previous beings and earths (3.1.178-80). His geohistorical vertigo culminates
in refusal to worship the God responsible for such devastation, in heated argument with
Abel, and in the latter’s death, instantly regretted by Cain as transforming him into that
which he dreaded—a destroyer of the living. While Byron’s depiction of deep time led
Mary Shelley to view *Cain* as written “in the highest style of imaginative Poetry,”
conservative moralists, such as Reverend John Styles, condemned the work in words
provocatively suggestive of the main disaster in *The Last Man*, calling *Cain* an instance
of Byron’s “moral pestilence” and “moral disease infinitely worse than plague.”295
Reactions in the manner of Styles redoubled anxiety among geologists not wishing their
new science received in Byronic terms. By portraying the Cuvierian destruction of
successive species and worlds as Lucifer’s means to instigating a murderous brand of
atheism, Byron stoked concerns about geology’s compatibility with biblical belief and
authority.

Yet, Byron was not the only one writing geological verses. Some English
geologists who followed Cuvier and felt burdened to prove their piety with statements of

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natural theology in their public works additionally responded to Byron’s drama with poems of their own, exchanging humorous manuscripts within their private circles. William Buckland, for example, an Oxford geologist, and friend and correspondent of Cuvier, and whose influence on Mary Shelley will soon become apparent, portrayed himself as a devout challenger of Lucifer in his poem, “The Professor’s Descent” (1821-22). Dialoguing with Lucifer in a manner unmistakably reminiscent of Byron’s Cain, the Professor/Buckland implores Lucifer to impart “some lore of the earth,” particularly of prehistoric creatures, such as the plesiosaurus and ichthyosaurus. Instead, Buckland’s Lucifer reveals his responsibility for Byron’s demonization of geology, responding,

Mantling in the goblet see
Boiling sulphur fired by me—
A drink to madden Byron’s brain,
To nonsense madder still than Cain;
To fire mad Shelly’s [sic] impious pride
To final crisis, suicide. (ll. 35-40)

Percy Shelley referenced Cuvier in a note to Queen Mab (1813) and possibly in a section of Prometheus Unbound (1820). According to Buckland, both Byron and Percy Shelley pollute geology with “nonsense” while being controlled by Lucifer in verse and deed. The geologist willingly accedes to these poets’ fate (“D— their souls with all my heart!”) but also dismisses them as inconsequential, remaining chiefly concerned with obtaining geological facts, and thus prompting Lucifer to exclaim,

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Ha! no Radical art thou
Foe of Hell I know thee now.
Hie thee hence & boast at home
That never more shall Parson come
To break my iron sleep again.  (ll. 47-51)

Like many geologists of the day, Buckland was a cleric; he later became the Dean of Westminster. Recognizing him as a “Foe of Hell,” Lucifer withholds geological secrets that Buckland would use to uphold, not undermine, Christian thought. Buckland’s poem thus works to reconcile geology and Christianity, and to bolster the confidence and resolve of his geological colleagues who could here laugh at Byron’s expense while repairing the ideological damage caused by Cain. Buckland favored humor as a means for geologists to address their self-image out of public view, as in his famously entertaining lectures at Oxford, where he sent students into roars of laughter with his impressions of extinct creatures, a style of teaching that later struck Charles Darwin as buffoonery, but that succeeded in drawing large crowds early in Buckland’s career.²⁹⁸ His jocund approach to geological study helped inspire his students and colleagues to write verses as well, often with Buckland as their subject, and perhaps nothing inspired so much of this doggerel as the cave theory that gained Buckland international renown.

Mary Shelley’s visionary glimpses of the future, originating in her findings within the Sibyl’s cave, capitalize on the cave-mania created by Buckland’s work. In December 1821, at almost the same time that Byron’s Cain went to press, Buckland examined a lately-discovered cave in Kirkdale, North Yorkshire. Prompted to investigation by

Cuvier, who hoped the cave might yield interesting fossil specimens, Buckland found the cave floor littered with teeth and bones belonging to extinct species of elephant, rhinoceros, hippopotamus, horse, ox, deer, bear, fox, and various birds, with the greatest quantity belonging to hyenas. The large number of hyena remains, and gnawing-marks on many of the cave bones, led Buckland to an important ecological theory interpreting the Kirkdale cave as an antediluvian hyenas’ den to which the scavengers dragged their prey, sometimes even cannibalizing one another’s carcasses. Buckland’s theory enabled paleontologists to begin to imagine the living habitats of fossilized species recovered from the earth. In his *Reliquiae Diluvianae* (1823), Buckland attributed various phenomena on the earth’s surface to effects of the biblical flood in Genesis, which he integrated with his cave paleontology.\(^{299}\) For Buckland, since evidence showed that this cave remained above sea level before the flood as well as in modern times, he imagined that a sudden deluge, perhaps in the form of a giant surge or tidal wave, resulted in extinction of these hyenas and the species on which they preyed.\(^{300}\) Buckland’s theory of hyena ecology vividly brought to life the geohistorical era prior to the modern period; and that vividness of vision also inspired the first-known illustrated scene from deep

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\(^{299}\) Rupke 64. \\
\(^{300}\) Although this contradicted Cuvier’s idea of continents and oceans exchanging places, the French naturalist sanctioned Buckland’s hyena-den theory, perhaps largely because Buckland’s cave work did corroborate Cuvier’s notion of successive, cataclysmic revolutions marking divisions within the earth’s history.
time.

Figure 2. William Conybeare’s cartoon of William Buckland entering the cave at Kirkdale in Yorkshire in 1821. Image from Wikimedia Commons.

In his lithographed cartoon, Buckland’s friend and fellow Oxford geologist, William Daniel Conybeare, depicts Buckland crawling into the Kirkdale cave where, by candlelight, the geologist reveals four antediluvian hyenas who appear more shocked to see Buckland than he is to see them. Although both parties find this encounter to be hair-raising, the hyenas’ wide-eyed surprise contrasts with the time-traveler’s smile of visionary delight as the scene enacts and confirms his geological theories. Buckland’s candle symbolizes Enlightenment science’s elucidation of the unknown, the geologist’s
imaginative illumination of antediluvian habitats.\textsuperscript{301} The illustration “was probably distributed widely among the members of the Geological Society in Britain; it certainly reached Cuvier, and probably others too, on the Continent.”\textsuperscript{302}

Coneybeare accompanied this illustration with a poem “On the Hyæna’s Den at Kirkdale” (1822), celebrating Buckland’s geological insights and, like Buckland’s “Professor’s Descent,” satirizing Byron. Coneybeare’s poem describes the hyenas as “munch[ing]” bones “just like Byron’s dog,” and alludes to their cannibalizing tendencies as a practice to be found in the second canto of \textit{Don Juan} (ll. 17, 44).\textsuperscript{303} For Coneybeare, Buckland’s geological analysis transforms Kirkdale cave into a “Mystic Cavern,” a keyhole through which modern humanity can “spy” the distant past, enacting what Thomas Henry Huxley later called “retrospective prophecy.”\textsuperscript{304} Much of the visionary wonder Byron achieves in \textit{Cain} derives from geology’s retrospectively “prophetic” view of the world’s past, and of past worlds. His appropriation of this geohistorical capacity profoundly affected Mary Shelley, who declares of \textit{Cain},

\begin{quote}
To me it sounds like a revelation—of some works one says—one has thought of such things though one could not have expressed it so well—It is not thus with Cain—One has perhaps stood on the extreme verge of such ideas and from the midst of the darkness which has surrounded us the voice of the Poet now is heard telling a wondrous tale.\textsuperscript{305}
\end{quote}

\begin{thebibliography}{99}
\bibitem{ru4} C.G.B. Daubeney, \textit{Fugitive Poems Connected with Natural History and Physical Science} (Oxford, 1869) 92-4; the poem is also quoted in Rudwick, \textit{Scenes}, 40-3.
\bibitem{ru2} Sommer, 49.
\bibitem{ru3} Mary Shelley, \textit{Letters}, 1:212.
\end{thebibliography}
While Byron’s Cain claimed Lucifer spoke of “things which long have swum / In visions through my thought,” Shelley lifts Byron’s “revelation” to a higher plane, analogous to Buckland’s torch of science and imagination, illuminating the “darkness which has surrounded us” and, through the prophetic powers of geology, “telling a wondrous tale” of what was, is, and will be in the history of the earth. In Cuvier’s words, geologists “burst the limits of time.”306 By invoking geology, Shelley enhances her claim to prophetic, time-bursting power through her own deciphered revelations from the Sibyl’s leaves, found in another “Mystic Cavern.”

The cave excursion in Shelley’s “Introduction” to her novel recalls Buckland’s cave theories. To find the Sibyl’s cave, Shelley and her companion wind through “murky subterranean passages,” groping their way through increasingly narrow and low corridors, until discovering “a wide cavern with an arched dome-like roof” (3). Significantly, the faint light by which they find this cavern issues from a fissure in the cave’s ceiling. In Buckland’s *Reliquiae Diluvianae*, he speculates that some antediluvian cave bones lacking the telltale gnawing marks of the hyena’s den belonged to animals that had fallen through fissures in the cave’s ceiling before the deluge. With poignant reference to Buckland’s theory, Shelley relates that, in the Sibyl’s cave,

The only sign that life had been here, was the perfect snow-white skeleton of a goat, which had probably not perceived the opening as it grazed on the hill above, and had fallen headlong. Ages perhaps had elapsed since this catastrophe (3).

Although the Sibyl’s historical existence would place this goat’s death in postdiluvial times, Shelley nevertheless alludes to an elongated geohistorical perspective, suggesting that “Ages…had elapsed,” associating this skeleton with Buckland’s fossilized cave

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bones. Of course Shelley’s application of the term “catastrophe” to describe this extinction of past life invokes Cuvier’s catchword for his ideas, later known as catastrophism. This image also lays groundwork for understanding the loss of a single life in catastrophic terms, downsizing Cuvierian cataclysm from, say, the shifting of continents, to the accidental plummeting of one living being to its death. In employing this goat skeleton as a symbol of catastrophe, Shelley could not have known of a comical incident in 1826 in which Buckland informed the population of Palermo that bones found in a cave and believed to be those of Rosalia, the city’s patron saint, in fact belonged to a goat.  

However, fresh in Shelley’s memory would have been Byron’s exclamation at the cremation ceremony for the sea-worn remains of Percy Shelley and Edward Williams, as she recorded in her Journal from Trelawny’s account that “Lord Byron looking at the shapeless, limbless mass as it was dragged from out its sandy grave said—‘What is a human body! Why it might be the rotten carcase [sic] of a sheep for all I can distinguish!’” For both Byron and Mary Shelley, this essential indistinctness of human and animal remains implies shared susceptibility to extinction. Shortly after Percy Shelley’s death, Byron, ever-conscious of the human destiny to be inferred from paleontological discoveries, cites Cuvier in Canto IX of Don Juan to imagine a time “When this world shall be former, underground”; he wryly challenges his readers to “Think if then George the Fourth should be dug up! / How the new worldlings of the new East / Will wonder where such animals could sup!” – thus reducing humanity to “such animals” that comprise mere specimens for “a new Museum” (ll. 291, 305-7, 320). Just so, Mary Shelley’s transformation of the Sibyl’s cave into a bone cave through the goat

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307 Rupke 68.
308 Shelley, Journals, 423.
skeleton from “Ages” past sets the tone for prophesying the extinction awaiting humankind.

**The Anti-Climax of Natural Disaster**

In delineating the plague’s extermination of humanity, Shelley may appear to reject Cuvier’s catastrophism, his insistence that sudden, violent catastrophes, changing the earth’s surface, caused previous extinctions of species; however, Shelley’s portrayal upholds Cuvier’s ideas for the time period in which she sets *The Last Man*. Early in his career, Cuvier suggested the possibility of future revolutions of the earth, implicitly forecasting the extinction of present species, including humanity, yet he quietly dropped this radical suggestion from later writings.\(^{309}\) As his theories evolved, Cuvier decided that the earth’s past revolutions, while sudden, had not been universal or global, but rather local and particular to specific regions, becoming more localized and less violent through the course of history. Examining present catalysts of geological alterations on the earth’s surface, such as volcanoes and landslides, he declared that in their modern state these forces could not enact the massive revolutions of the past. In her novel, Shelley revives the fearful prospect of human extinction, but does so in a way that corresponds with Cuvier’s notion of the earth’s diminished power. She demonstrates a relatively moderate destructive potential for current geological and meteorological phenomena, alluding to various theories of the causes and forms of past revolutions and, while making these the companions of pestilence, aligns with Cuvier by denying these forces’ responsibility for the future extinction of humanity. Associating her novel with Cuvier’s writings and influence, even in the Sibyl’s cave, Shelley notices the ravages of

\(^{309}\) Rudwick, *Cuvier*, 18, 257.
past revolutions in which “the whole of this land had been so convulsed by earthquake and volcano” (4). She portrays natural phenomena of this kind as now largely ineffective in their destructive capacity, but as powerful portents of the extinction to come.

With the advent of the plague at the beginning of the novel’s second volume, Shelley charts the disease’s movement across the earth in an atmosphere of geologic intensity. Originating in the East, the plague quickly spreads within Asia, eastern Europe, Africa, and into the Americas, coupled with reports of strange natural phenomena and disasters. From Asia and the eastern Mediterranean come accounts that “a black sun” caused a complete eclipse, accompanied by a “convulsion” of the earth “which ‘shook lions into civil streets;’”—birds, strong-winged eagles, suddenly blinded, fell in the market-places, while owls and bats shewed themselves welcoming the early night” (236). Shelley’s black orb, bringing absolute darkness, conjures up apocalyptic dread of the extinguishing of the sun, an event predicted in Buffon’s theory of cooling planets and the central cataclysm of previous last-of-the-race works by Grainville, Byron, and Campbell. However, for Shelley, this drastic eclipse, and the earth’s convulsion, is temporary. She figures this iconographic concept of the sun’s death as a means to human (and world) extinction only to avert it, a move that becomes her modus operandi for addressing theories of past extinctions.

In The Last Man, Shelley references several theories of the world’s past destruction by flood and the event’s resonance with both catastrophists and biblical literalists. After the plague reaches England, she dramatizes Cuvier’s hypothesis that the earth’s last revolution resulted from either flood or a drastic change in temperature, portraying a less violent form of both. Blighting Britons’ hopes that cold weather will
dissipate the pestilence, plague-stricken England experiences a year without a winter, a striking reversal of the famed “year without a summer” experienced by the Shelleys and Byron at Geneva in 1816. The country also faces a failed crop, devastating storms, and flooding so that “half of England was under water” and, due to such floods on the Continent, “whole villages were carried away” (283). Extending this threat of deluge, Shelley sets the stage for Buckland’s flood theory, which he envisioned as a sudden surge or tidal wave. In this instance, gathering on Dover’s cliffs, the remnants of Britain’s population prepare to migrate to the Continent in search of a climate less susceptible to pestilence; namely, they plan to travel to the Alps, which Romantic-era naturalists often described as salubrious to the point of hyperbole – able to cure weakness, cares, and infirmities, regenerate the mind and body, and whose waters “have not crossed the pestilential vapours which hover over our plains.”

As the soon-to-be emigrants watch the setting sun over an unusually tempestuous sea,

suddenly, a wonder! three other suns, alike burning and brilliant, rushed from various quarters of the heavens toward the great orb; they whirled round it….The horses broke loose from their stalls in terror—a herd of cattle, panic struck, raced down to the brink of the cliff, and blinded by the light, plunged down with frightful yells in the waves below. The time occupied by the apparition of these meteors was comparatively short; suddenly the three mock suns united in one, and plunged into the sea. A few seconds afterwards, a deafening watery sound came up with awful peal from the spot where they had disappeared (393).

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With the plunge of these “meteors” into the sea, a “wall of water” rises, prompting the horrified crowd of spectators to frantically question, “Was not the giant wave far higher than the precipice? Would not our little island be deluged by its approach?” (394). Yet, as the wave approaches, it dissipates entirely.

In detailing this astronomical anomaly, Shelley appeals to biblical literalism even as she makes no direct mention of supernatural forces. The three meteors arguably contain the scriptural significance of the trinity, especially as “united” in a single entity, and the resulting tidal wave threatens forfeiture of God’s biblical promise never again to destroy the world with flood.311 While the depiction of cattle plunging over the cliff’s edge to their death in the ocean seems to reference the swine herd that runs off a precipice and falls into the sea in the gospels at the instigation of demons, Shelley’s cattle race to their death in terrified reaction to the inexplicable, but not obviously supernatural, three whirling “suns.”312 By expending the strength of the tidal wave before it reaches land, Shelley both sustains the scriptural promise against repetition of the flood and rejects the biblically- and geologically-founded deluge of the past as a possibility for the future destruction of humanity. With these meteors’ allusion to the flood that, according to numerous geologists, caused the last revolution and extinction of various species, Shelley also points to a theory discussed by naturalists such as George Greenough and John Henslow, claiming the flood resulted from a comet’s passage close enough to the earth to produce enormous tidal waves that engulfed the continents.313 Percy Shelley earlier referenced this cometary mechanism in *Prometheus Unbound*, attributing the extinction of “the jagged alligator” and the “earth-convulsing behemoth” to a deluge.

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311 Genesis 9:8-11.
313 See Rupke 41, 76-7.
caused when “some God / Whose throne was in a comet, passed, and cried, / ‘Be not!’
And like my words they were no more.”

But, as in her other allusions to geological disasters, Mary Shelley posits the possibility of deluge, building suspense and anticipation for an expected apocalypse, only to immediately quell it.

Finally, following the drowning of Adrian and of Raymond’s daughter, Clara, Shelley depicts Cuvier’s grandest theory of past extinctions. The deaths of these two characters when their boat sinks in a fleeting storm seal the fate of humankind, extinguishing the final hope for producing a new population of humanity, and their drowning of course recollects that of Adrian’s real-life counterpart, Percy Shelley. Significantly, after losing these last human companions, Verney dreams “that ocean, breaking its bounds, carried away the fixed continent and deep rooted mountains, together with the streams I loved, the woods, and the flocks—it raged around, with that continued and dreadful roar which had accompanied the last wreck of surviving humanity” (474). Verney’s dream reenacts Cuvier’s radical theory in which continents sank and exchanged places with oceans at various times in the globe’s history. In this way, the deaths of Adrian and Clara become bound up with the drowning extinctions of various antediluvian species (including the British hyena). Yet, as a dream, Shelley presents Cuvier’s grand theory of past catastrophes only to retract this geological possibility in her futuristic setting of humanity’s decline.

Shelley’s representations of an earthquake, extinguished sun, floods, climate changes, comets, and violent continental shifts, each bring to view a separate scientific hypothesis about the form of cataclysm causing past or possible species extinctions. Nevertheless, for Shelley, none of these natural forces achieve the sustained potency

314 Prometheus Unbound IV: 309, 310, 316-18.
necessary to annihilate humanity, and her portrayal thus, somewhat paradoxically, remains consistent with Cuvier’s ideas about geological catastrophes in the modern, enervated state of the world. Moreover, in putting forth and then dismissing these disasters, Shelley demonstrates that humanity’s extinction can occur without such dramatic displays of geological force. Unlike other contemporary last-of-the-race works, that envision the end of humanity as inseparable from worldwide apocalypse, Shelley imagines a continuing world, where the extinction of humans involves much less disturbance than the disappearance of the plesiosaurus, mammoth, or British hyena before them; in the absence of geological catastrophe, the earth and its animal inhabitants (with the Byronic exception of a single dog) remain placidly indifferent to the loss of human life. In support of Cuvier’s directional notion of the earth, Shelley displays that geologists’ theories about extinctions of past species cannot apply to the destruction of future populations on a comparable scale. Instead, she shifts catastrophe away from the level of the geological world and into that of the individual.

“And Now a Bubble Burst, and Now a World”

For many critics, the first volume of Shelley’s novel, portraying the main characters in romantic courtships, marrying, having children, and attaining domestic felicity at their country estate in Windsor serves, at best, as a distraction from the dominant events associated with the plague and the demise of humankind in the final two volumes; however, this dismissal of the domestic, I argue, misses precisely the reconceptualization of geological catastrophism on which Shelley’s novel insists. Shelley’s emphasis in the first volume on her main characters’ educations, aspirations,
and creations of families and interwoven friendships paradoxically establishes circumstances under which each individual becomes, in a sense, a world in itself, even while interconnected and especially meaningful within private relations and effects on domestic companions. The character of Perdita exemplifies this notion of the individual’s geological significance when, for instance, she pursues the acquisition of knowledge and finds herself to be the greatest “terræ incognitæ, the pathless wilds of a country that had no chart” (167). Stressing individuality, Shelley compares “the dispositions of men” with “the leaves of the forest,” concluding, “there were no two alike,” and distinguishes the individual’s vulnerability with the “riddle of the Sphynx…that thus man remains, while we the individuals pass away” (158, 240).

More than the geological and meteorological disasters described by Cuvier, plague, the invisible and mysterious instrument of human destruction, lends itself to focus on the individual. It represents a disaster experienced exclusively by humans and acts insularly, personally on one’s body; it brings physical corruption, cataclysm, catastrophe to the individual world, destroying the domestic world of which it forms a part, and revolting (to return to the sentiments expressed by the critic from *The Monthly Review*) with the “minuteness” of its anatomical effects. Indeed, Shelley increases the value allotted to the loss of a single life by using “extinction” in reference to both species and individuals. While Verney often mentions “the extinction of our species” and “the extinct race” of humanity, he also applies the term to domestic units when, for example, he describes “the sturdy labourer…weeping over his extinct family,” and to individuals when he describes his wife, Idris, by hoping “Extinction could not be near [such] a being” and acknowledging that her life “had long been hovering on its extinction” (324,
This echoes Shelley’s own privatization of the term when she wrote of her domestic isolation, of “my companions extinct before me.” Extinction becomes a matter of private loss, as well as the monolithic destruction implied in the extinction of a species.

The domestic values Shelley emphasizes within the familial, communal concerns of the first volume become increasingly important in proportion to their increasing absence in the novel, as death takes its toll on humanity. Indeed, in such crisis, the significance of domesticity gradually overtakes that of the (masculine/public) pursuits of war, commerce, and, as we shall see, even science, in the final volumes. When, before the first appearance of the disease, Adrian returns from aiding Raymond in the Greek wars against the Turks, he remarks the triviality of individual deaths in wartime: “I have learnt in Greece that one man, more or less, is of small import, while human bodies remain to fill up the thinned ranks of the soldiery; and that the identity of an individual may be overlooked, so that the muster roll contain its full numbers” (170). Shelley exhibits this pre-plague carelessness of life in the commercial realm as well, where men daily risk death in trade-driven voyages for empire (334). Yet, as the plague makes its way around the globe, individual lives take on new value even in these mercenary contexts of trade and war. When the surviving population of America floods back into Britain in what has been recognized as an example of reverse colonization or the empire striking back, Adrian arrests an ensuing battle between these immigrants and the waning British citizenry by drawing the crowd’s attention to a single, dying individual, upon which, “every heart, late fiercely bent on universal massacre, now beat anxiously in hope.
and fear for the fate of this one man” (319). In the midst of plague, this individual’s death brings cognizance of life’s import and reconciles the opposing forces in “a gush of love and deepest amity….talking only how one might assist the other” (319). In this vein, Shelley provides numerous portraits, some sympathetic, some less so, of lives successively succumbing to the plague and forcing the reader to endure one devastating loss after another. The powerful singularity of death thus materializes, paradoxically, in repeated, brief glimpses of nameless individuals such as the terrified man who drops dead at the cue of a rambling lunatic, the choir member who chillingly expires in the midst of his hymn to God, the old woman who fearfully sequesters herself from her community only to die in search of food, and so on, with the sense of each being representative of countless more, equally individual stories of death. And this demonstrated suddenness with which plague brings destruction once contracted importantly reinforces Shelley’s privatization of geological catastrophism.

In debates over the form, cause, and duration of the earth’s revolutions, while Cuvier and Buckland claimed the occurrence of sudden and violent catastrophes, biblical literalists questioned what constituted “sudden” considering that, in the Mosaic account, Noah’s flood lasted for forty days. In the early nineteenth century, a marginal but growing group of anti-catastrophism geologists began to lengthen the time and lessen the degree of violence necessary to effect the earth’s revolutions. Since, in Shelley’s novel, the plague destroys humanity over the course of seven years and leaves the earth wholly intact, Fiona J. Stafford views The Last Man as anticipating “the uniformitarianism of the subsequent decade.” Uniformitarians perceived geological change as cyclical and as

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315 Cantor 196.
316 Stafford 216.
occurring over vast periods of time so that the earth remained largely “uniform,” thus opposing catastrophists’ notions of abrupt and violent past change. However, as I have shown, catastrophist ideas about extinction, cave theories, and natural cataclysms crucially inform Shelley’s text. With the lessening magnitude of geological catastrophe, Shelley transfers, I argue, Cuvier’s cataclysmic devastation to the domestic sphere. If, globally speaking, it took several years for the plague to achieve humanity’s extinction, the disease impacts the individual very swiftly, and in some cases almost instantaneously. Thus, Shelley shifts the suddenness of catastrophe, as well as the magnitude of its resonance, into the individual. She recasts the successive, geological destruction of previous worlds, described in the works of Cuvier and later Byron, as the successive destruction of individual worlds, recognizing each individual as a world, and each death an apocalypse on the lives of surviving friends and family members. For Shelley, this privatization of catastrophe combats scientific generalizations about extinction that disregard the experiences of individuals.

In Frankenstein, Shelley critiques the scientist’s tendency toward egotistical absorption in speculations and experiments that causes his obliviousness to real dangers threatening his domestic world; in her third novel, Shelley models this critique perhaps most clearly through her fictional astronomer, Merrival, whom she compares to Pierre-Simon Laplace, the Romantic era’s most renowned mathematician and astronomer. Interestingly, Cuvier dedicated his Ossemens Fossiles to Laplace to suggest that the new science of geology would do for conceptions of time what Newton and Laplace had done for space. Shelley notes that Merrival’s immense knowledge earns him this prestigious comparison, but portrays him, surrounded by plague, as “far too long sighted in his view
of humanity to heed the casualties of the day,” regaling any potential listener with “his Essay on the Pericyclical Motions of the Earth’s Axis” and “the state of mankind six thousand years hence,” for he “lived in the midst of contagion unconscious of its existence” (305-6). Merrival’s conjectures, six thousand years into the future, form an exact reversal of those of naturalists and biblical literalists who placed the earth’s creation roughly six thousand years in the past; his further speculations about the conditions of the earth a hundred thousand years in the future stands in for much greater estimates of the planet’s age by a growing majority of geologists in the early nineteenth century, displaying Shelley’s subtle nod to this geological debate, as well as to its frivolity when one’s private world is under threat (231-2). Unconcernedly impoverished and humorously only half-conscious of his caring wife and boisterous children, Merrival’s visionary, telescopic gaze blinds him to present and personal realities that soon break in with painful obtrusion when every member of his family perishes from the disease. Struck with sudden and immense grief, “The old man felt the system of universal nature which he had so long studied and adored, slide from under him, and he stood among the dead, and lifted his voice in curses”; after many days of anguished mourning, he dies while “embracing the sod” of his wife’s and children’s graves (322, 323). The visionary capacity of astronomers and geologists, capable of grasping the immensities of time, the destruction of former worlds, and the possibilities of the future, becomes meaningless with the destruction of cherished individuals within one’s own domestic world. Shelley, as a grieving widow and mother, understood that the earth need

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317 Near the beginning of the eighteenth century, Sir Isaac Newton, for instance, estimated the creation of the earth to have occurred in 4,000 B.C.; a century later, Cuvier estimated the earth to be millions of years old, but other catastrophists maintained estimates closer to that of Newton, taking a literal interpretation of the “days” of creation in Genesis. James Hutton, on the other hand, claimed that the earth’s history stretched indefinitely into the distant past, helping to form the ideas of uniformitarianism and of deep time.
not undergo a geological revolution for one’s world to suffer a cataclysmic convulsion. Detailing the extinction of humankind as a horrifying succession of individual deaths in which no one will survive, Shelley presses the fact that loss occurs no less assuredly outside of the novel’s realm than within it and, regardless of the means, the death of the individual devastates the domestic circle left behind.

Even the first major demise in the novel, that of Lord Raymond, occurring before the plague crisis, emphasizes death as the catastrophic destruction of an individual “world,” represented by Shelley as a literal cataclysm. When fighting for the Greeks, Raymond charges alone into the lately-abandoned Turkish stronghold of Constantinople, and suddenly “a crash was heard. Thunderlike it reverberated through the sky, while the air was darkened…fragments of buildings whirled above, half seen in smoke, while flames burst out beneath, and continued explosions filled the air with terrific thunders” (209). The gunpowder explosions killing Raymond compose an artificial catastrophe, born out of war. Raymond’s death devastates his wife, Perdita, and results in her own suicide by drowning. Perdita’s initial reaction to losing Raymond reveals a revolution of the mind, if not of the earth, when she states, “Look on me as dead; and truly if death be a mere change of state, I am dead” (221). With this interior revolution, Perdita becomes essentially extinct. Just as the “phantoms” of extinct species from previous “worlds,” exhibited by Byron’s Lucifer to Cain, find the present earth unrecognizable, Perdita projects her inward cataclysm onto her geological surroundings, affirming, “This is another world, from that which late I inhabited” (221). With the destruction of her domestic world, Perdita experiences private suffering as global catastrophe.
Shelley’s depiction of internalizing geological apocalypse importantly differs from M.H. Abrams’s classic argument in *Natural Supernaturalism* (1971), delineating Romantic writers’ “secularization” of New Testament models of apocalypse or revelation. According to Abrams, following the failure of their millennial hopes in the French Revolution, many Romantics absorbed the model of apocalypse into the imagination, producing a revolution of consciousness in which the mind possesses the power to transform the world “into a new heaven and new earth” (47, 334). In Abrams’s formulation, Wordsworth’s internalization of apocalypse, his imaginative perception “accomplishes nothing less than the ‘creation’ of a new world,” which the poet judges to be something “better” that restores hope and “justifies suffering as the necessary means toward the end of a greater good”; yet this tone differs dramatically from that of Mary Shelley’s *The Last Man* (338, 96). Shelley’s portrayals of privatized apocalypse and the “new world” envisioned by such a transformation produces devastation, rather than hope, and lacks any sense of the “greater good,” pointing instead toward meaninglessness and death. Her privatization of catastrophe considers individual death as a crisis in its impact on the domestic household as well as on the inward consciousness, and this emphasis on the private sphere enacts a feminine appropriation of this Romantic trope. Arguably critiquing contemporary male poets’ turn inward, their internalization, Mary Shelley demonstrates that this extreme individualism, embedded in her concept of lastness, creates isolation. Her focus on death rather than renovation differentiates the effect of her “secularization of theological ideas” from that of many Romantic male writers so that the model of Paul’s conversion experience in the New Testament, making him “a new

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creature,” reborn as though in a recreated world, resonates very differently with Shelley’s transformed character, Perdita, whose new perception produces, not redemption, but an agonized feeling of displacement in relation to the outer world (12, 48).

“New Worldlings”

If Perdita’s personal cataclysm brings a perspective analogous to that of extinct species from previous epochs of the earth, incapable of identifying the world in its present form, this allusion also opens the way to thinking about the creatures that may inhabit the globe after human extinction. Resisting this thought of an end to human existence, Verney seeks to convince himself, “Surely death is not death, and humanity is not extinct,” hoping for a resurrection of the human population by some means (438). Although Cuvier convinced most of his colleagues that fossils represented species no longer extant on the earth, crushing expectations, for instance, of finding mammoths still roaming the American west, some geologists speculated about the possibility of resurrecting into life these past forms. Four years following the publication of The Last Man, Charles Lyell, a leading proponent of uniformitarianism, and thus of a cyclical rather than directional history of the earth, looked beyond humanity’s future extinction in his Principles of Geology (1830) and proposed that ecological conditions may eventually recur to those that gave rise to species of the past. Under such conditions, “Then might those genera of animals return, of which the memorials are preserved in the ancient rocks of our continents. The iguanodon might reappear in the woods, and the ichthyosaur in
the sea, while the pterodactyle might flit again through umbrageous groves of tree-ferns.”

In her novel, Shelley, too, conjectures about possible beings that may occupy the earth after the extinction of humanity. For instance, when Merrival speaks of humanity’s state six thousand years in the future, unaware of the species’ proximity to annihilation, he provokes Verney to remark that Merrival “might with equal interest to us…describe the unknown and unimaginable lineaments of the creatures, who would then occupy the vacated dwelling of mankind” (306). Lyell’s imaginings of such “unknown and unimaginable…creatures” as resurrected beings of the past struck catastrophists as preposterous, prompting one geologist, Henry De la Beche, to create the cartoon, “Awful Changes” (1830), for circulation within the Geological Society in London, taking both the illustration’s title and its epigraph, “A change came o’er the spirit of my dream,” from Byron’s poem, “The Dream” (1816).

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Effectively ridiculing Lyell’s concept of a future earth, De la Beche employs the carnivalesque, “world upside down” technique of broadsides, popular since the sixteenth century, that evoked such images as a horse riding a jockey, a wife beating her husband, and so on. Here, rather than humans studying the fossils of creatures from the Liassic period, De la Beche portrays a future era in which humanity is “found only in a fossil state.” He presents Lyell as “Professor Ichthyosaurus,” displaying a human skull and lecturing to other ichthyosaurs and plesiosaurs on the subject of human behavior insofar
as it can be inferred from fossil remains. The cartoon’s caption humorously renders the tenor of this lecture: “‘You will at once perceive,’ continued Professor Ichthyosaurus, ‘that the skull before us belonged to some of the lower order of animals[,] the teeth are very insignificant[,] the power of the jaws trifling, and altogether it seems wonderful how the creature could have procured food.’” One hears the echo of Don Juan as these “new worldlings” examine “the power of [human] jaws” and, in Byron’s words, wonder “where such animals could sup!” Despite the frustrations of geologists like Buckland and Conybeare with Byron’s poetic license, in an atmosphere of visionary speculation about past and future worlds, geologists found themselves both inspiring and inspired by the imaginative literature of their era.

Shelley’s text intervenes between the works of Byron and Lyell to join in these speculations about existence in a post-human world. Upon being left as the last man, Verney enters the deserted Italian town of Forli and feels pride in its wide streets and impressive architecture, admitting, “I was pleased with the idea, that, if the earth should be again peopled, we, the lost race, would, in the relics left behind, present no contemptible exhibition of our powers to the newcomers” (482). While the species of beings with which Verney imagines the future world to be “peopled” remains unclear, his assertion assumes new meaning in light of geological analogies. Since, in Cuvier’s rhetoric, “relics” and monuments interchange with fossilized bones, human anatomy comes into question, and Verney’s optimism uncomfortably contrasts with the works of Byron and De la Beche, who imagine the “relics” of humanity appearing not only “contemptible,” but also “insignificant” and “trifling” to future “worldlings.” Interestingly, Verney’s speculations about these “newcomers,” the “unknown and
unimaginable…creatures” who may replace humanity, arguably contain great irony because, for Shelley, he becomes representative of this prospect of post-human existence which also formed the chief subject of her first novel.

In *The Last Man*, Shelley encourages comparison between Verney and Frankenstein’s Creature. She makes this parallel strikingly explicit when, for example, the solitary Verney states, “I am a tree rent by lightning,” identifying himself with the object that memorably inspired the Creature’s creation (479). Created from fragments of decaying corpses, both human and animal, the Creature constitutes a new species, and Frankenstein’s fear of this species’ procreation and ultimate destruction of humanity leads him to abandon construction of the Creature’s female companion. Significantly, when Verney, the only human to survive being infected or perhaps inoculated by the plague emerges from this disease he feels that he possesses superhuman abilities – abilities almost identical to those of the Creature. Verney states,

> My body, late the heavy weight that bound me to the tomb, was exuberant with health; mere common exercises were insufficient for my reviving strength; methought I could emulate the speed of the racehorse, discern through the air objects at a blinding distance, hear the operations of nature in her mute abodes; my senses had become so refined and susceptible after my recovery from mortal disease (365).

The “mortal disease” from which he “recover[s]” is *death* and, comparably to both Frankenstein’s Creature and the fossilized creatures imaginatively resurrected in the hands of Cuvier, Verney rises from the dead. His survival and transformation renders him, like the Creature, a unique being, perhaps harboring potential for a new biological
race or species. But if this is the case, his potential, with that of the Creature, is not to be realized as both figures then represent the first and last of their respective races. In both cases, they are anomalies on the earth. Retaining the resonance of geological catastrophe, these Byronic, solitary figures poignantly privatize and individualize the concept of extinction, appearing as temporally alienated, belonging to an extinct (or not-yet-actualized) species, deprived of domestic felicity. For the Creature, his resemblance to humankind only exacerbates his feelings of monstrosity, and Verney echoes those sentiments of displacement, perceiving his person as “a monstrous excrescence of nature” for its likeness to an extinct species (495). Upon becoming the last man, Verney even assumes a corpse-like appearance, reminding of that of the Creature: “My tattered dress was that in which I had crawled half alive from the tempestuous sea. My long and tangled hair hung in elf locks on my brow—my dark eyes, now hollow and wild, gleamed from under them—my cheeks were discoloured by the jaundice, which (the effect of misery and neglect) suffused my skin” (483). Although Verney tries to revive his hope of finding a fellow being in the world, in the reader’s last image of him, as of the Creature, he paddles off in a lone, “tiny bark” (499). Despite Shelley’s conjectures regarding the generation of future beings, in the case of both Verney and the Creature, as in her positing of modern catastrophic revolutions of the earth, she presents these possibilities only to dismiss them. If future “creatures” will assume the place of humanity, Shelley ensures that their “lineaments” remain “unknown and unimaginable.”
This “World’s Sole Monument”

Readers seek in vain for some higher purpose or ideological justification for humanity’s annihilation in The Last Man. Struggling to grasp the irrevocability of extinction, many geologists desired an explanation for such disappearances of the past. In a manner reminiscent of Byron’s Cain, Shelley’s contemporaries questioned why God would create species only to destroy them. Interestingly, attempting to answer this question in part, the geologist and friend of Buckland, Philip Duncan, lampooned the “last man” motif with the Kirkdale cave discoveries in his poem, “The Last Hyæna” (1820s?; pub. 1869).\(^{321}\) Portraying a hyena poised on a precipice in sublime solitude just prior to the flood in Genesis, Duncan’s poem combines Romantic aesthetics with Buckland’s diluvial theory of catastrophism and bathetically renders the hyena’s perspective of his fate. With the remorse of Byron’s fratricidal Cain, the cannibalistic hyena appears, to some extent, responsible for his own lastness, having eaten the other hyenas he could find.

But now the whelming surge had buried all,
In caves below, of beast both great and small,
But e’er it rose to mix him with the rest,
Thus did he growl aloud his last request:

‘My skull to William Buckland I bequeath,’—

He moaned, and ocean’s wave he sank beneath (ll. 11-16).

Duncan provides a simple explanation of the purpose for these diluvial extinctions. Satirizing geologists’ efforts to reconcile extinctions with the biblical deluge, Duncan portrays Noah’s flood as a *felix culpa*, for

\(^{321}\) Daubeney 119-20.
had not man, with deeds of deepest dye,

Brought down the streaming vengeance from on high,

And swelled the ocean from its dark retreat,

His brother monster must have wanted meat” (ll. 27-30).

The British hyena represents only one such “monster” of the many fossilized species recovered by paleontologists in the early nineteenth century whose size and evident or assumed ferocity prompted exclamations of relief at their extinction. Attribution of these species’ disappearance as proof of God’s wisdom and love for humankind became a commonplace means of conciliating geology and natural theology. But, as Duncan’s comical verse implies, most geologists recognized the inadequacy of these efforts toward explanation and reconciliation. Certainly, such an anthropocentric rationalization in which the world functions for the sole benefit of humanity offers no comfort and, indeed, becomes ridiculous, within the context of human extinction on a still-continuing earth.

Making no pretext toward some grander scheme or purpose, Shelley depicts nature’s utter indifference, writing, “Yes, this is the earth; there is no change—no ruin—no rent made in her verdurous expanse; she continues to wheel round and round, with alternate night and day, through the sky, though man is not her adorner or inhabitant” (486-7).

No catastrophe marks humankind’s disappearance, yet, to return to the puzzling inscription quoted in this chapter’s introduction, Verney delineates 2100 as “the last year of the world!” To understand this paradox of the world ending while the earth experiences “no change” and “continues to wheel round and round,” we must recognize that the “world” to which Verney refers is both his own individual life and also humanity’s “world” of domestic units. While not suicidal, Verney alludes to the

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322 O’Connor, Earth on Show, 43-4.
possibility of his own drowning death as he prepares to set off in his boat on “that water—cause of my woes, perhaps now to be their cure,” either in death or in the improbable discovery of other survivors of the plague (497). Shelley’s privatization of geological catastrophism, her identification of the individual as world, culminates in Verney’s prophesied destruction of the only world, in this sense, that remains. In his solitude, it is Verney who composes the narrative of Shelley’s novel, which she traces from the Sibyl’s leaves, and which he describes as “this ‘world’s sole monument’….a monument of the existence of Verney, the Last Man” (495). In this statement, Verney defines himself as world, and his characterization of the book as a “monument” aligns with Cuvier’s self-designation as an antiquarian, deciphering the “monuments” of extinct species, an employment that transfers to Shelley through her deciphering of this text, this monument that symbolizes Verney’s preserved remains. Implicitly, her autobiographical framework further makes this text Shelley’s “monument” to her own domestic world, now extinct, yet preserved for future decipherers in the form of savvy readers and literary critics. Just as, for Cuvier, the monuments or fossils of extinct creatures communicate a narrative of their world’s past, this monument of Verney’s existence details a narrative of his individual history, his own world’s past. When Verney carves into stone that 2100 signifies the “last year of the world,” he essentially inscribes his own gravestone before embarking on a search for life that can only end in death – in the catastrophic destruction of this particular “world.”

Mary Shelley and many of her contemporaries experienced the 1820s with a sense of limbo, of existing between one era and the next and, within this transitional moment, Shelley’s privatization, her domestication of science, interestingly helps to signal the end
of natural history’s heyday in the literary works of women writers. As I illustrated in an earlier chapter, Charlotte Smith ultimately doubted natural history’s ability to impart originality and authority to imaginative literature, demonstrating the difficulty for women to sustain the serious melding of literary-scientific pursuits. Within this context, Shelley suggests an alternative for women’s employment of natural history. Whereas the previous generation of women writers reveled in correcting naturalists’ scientific assertions in overtly erudite and technical terms within their literary works, Shelley focuses more intently on correcting the moral shortcomings she views in science, especially its generalizations that ignore the fate of individuals and the importance of the domestic sphere, and she does so in stylistic terms more conventionally associated with the works of, for instance, Percy Shelley and Byron, even as her focus on domesticity differentiates her from the Romantic tradition. Looking beyond Romanticism, unlike Wordsworth’s confident assertion that “nature never did betray the heart that loved her,” Mary Shelley’s conception of the environment shares more in common with literary images of the subsequent era, such as Tennyson’s unsanitized portrayal of nature’s red tooth and claw in “In Memoriam,” or Robert Browning’s Caliban, who describes “extinctions” as a process of meaningless, random selection, rather than natural selection.

In Shelley’s novel, there is no explanation for the annihilation of individuals or of the human species as singled out from the various other species on the planet. Yet, through this very threat of loss, Shelley presses the significance and singularity of those individuals and their domestic relationships, representing nature as not in itself interpretable, and interiorization as potentially ending in further isolation and catastrophe. She thus critiques a signal trope of Romanticism through the concept of lastness,
indicating that, in its extreme, individualism can become monstrous. By emphasizing the domestic sphere (rather than science) as the locus of meaning, Shelley exemplifies a pervasive trend in the serious literature of women writers for the next five decades of the Victorian era, as science became, for them, a no-longer-viable source of cultural authority. Although these effects had been in motion for some time, in the 1820s, developing Victorian ideals about feminine propriety more prominently combined with science’s shift toward professionalization and masculinization, making it increasingly difficult for women to discuss science outside of its relation to domestic discourse. In my epilogue, retaining focus on geology, I examine the writings of Felicia Hemans as exemplifying this alteration from earlier, Romantic-era ideological possibilities for women in science to Victorian concerns about feminine decorum that drastically limited women’s literary participation in natural history and ensured their closer stylistic assimilation with conventions now associated with the Romantic literary tradition.
Epilogue

Laughter and Lava: Felicia Hemans, Feminine Propriety, and Romantic Geology

In 1823, one critic favorably contrasted Felicia Hemans’s “womanly nature” with that of female authors demonstrating education in the natural sciences, likening the latter to nondescript natural objects and sneering that “the writers of Natural History make no mention of [Bluestockings].”\(^\text{323}\) Even while the critic describes these learned women as monstrous, he thus perpetuates the conflation of women and nature in a mode of discourse from which Wollstonecraft earlier hoped women might be freed through their own studies of the natural sciences. For the critic, these scientific women display a loss of gender that receives correction from Hemans, to whose poetry he turns with “pleasure and confidence.” Hemans built her literary reputation on cultivating this difference. Her friend and earliest biographer, Henry F. Chorley, wrote of Hemans, “I never saw [a woman] so exquisitely feminine….Any thing abstract or scientific was unintelligible and distasteful to her.”\(^\text{324}\) Hemans encouraged this feminizing perception of her poetic persona, and even reinforced the correlation of women and natural objects when she presents herself as an amalgam of nature and domesticity, or, in her words, “a creature of hearth and home.”\(^\text{325}\) Yet, despite Chorley’s and the critic’s public distinction of Hemans from other women writers through her “distaste” for science, Hemans’s knowledge of the natural sciences, in fact, arguably rivals that of the previous generation of women writers, making her choices about when and how to use science important to understanding early nineteenth-century changes in women’s merging of literature and natural history.


\(^{324}\) Henry F. Chorley, Memorials of Mrs. Hemans with Illustrations of her Literary Character and from her Correspondence. In Two Vols. (London, 1836) 1:187-8.

\(^{325}\) Italics mine; qtd in Chorley 1:212.
While poems by early Romantic-era women such as Charlotte Smith, as we have seen, often demonstrate a taxonomic acumen in natural history, Hemans’s work exemplifies an aesthetic shift toward an alternate compatibility of science and feminine propriety. In my chapters on Smith and on Helen Maria Williams, I displayed that these women eventually questioned natural history’s ability to sustain originality and authority in imaginative literature. Building on the doubts that surface in these chapters, my epilogue examines Hemans’s geological poems as exemplifying an alteration from science’s Romantic-era possibilities for women to Victorian concerns about feminine decorum, particularly in relation to religious devotion and poetic personae, that limited women’s literary participation in natural history.

Although, in the eighteenth century, the line between the amateur and professional naturalist was blurred and invited the participation of non-specialists, including women, in the first decades of the nineteenth century, that line became increasingly concrete, and science retracted into the universities and professional societies, such as the Linnean Society, the Royal Society, the Geological Society of London, and the British Association for the Advancement of Science – all institutions from which women were barred from full participation. As president-elect of the BAAS, in 1831, the English geologist, William Buckland, rationalized excluding women from the society, explaining that “Everybody whom I spoke to on the subject agreed that if the Meeting is to be of Scientific utility, ladies ought not to attend the reading of the papers—especially in a place like Oxford—as it would overturn the thing into a sort of Albemarle [Royal Institution] dilettante meeting instead of a serious philosophical union.
of working men.” In analyzing changes in women’s access to science, I illustrate women’s closer stylistic assimilation with the Romantic literary tradition, a trend also noted in my chapter on Mary Shelley, yet, as in the case of Mary Shelley, Hemans’s work differs from that of the male Romantics in its more frequent focus on the domestic. After the failure of the French Revolution, conservative critics and British audiences more generally rejected women writers who could be seen as disciples of Mary Wollstonecraft in advocating gender equality or exerting intellectual prowess. At the same time, the increasing professionalization and masculinization of science made it increasingly difficult for women to discuss natural history outside of domestic discourse so that when women writers in the 1820s and ‘30s, such as Felicia Hemans, do employ science in their published works it assumes a less studious and more domestically-oriented form.

I chart this transition in women’s scientific writing directly within Hemans’s verse by analyzing two of her geological poems: “Epitaph on Mr. W—, a Celebrated Mineralogist” (ca. 1814-1816) and “The Image in Lava” (1828). Each poem envisions human remains encapsulated within rock but, while the epitaph on the mineralogist remained unpublished during Hemans’s lifetime and exhibits a playfully masculine (unfeminine) and intellectual tone, “Image” was published in Hemans’s *Records of Woman: With Other Poems* (1828) and assumes a more earnestly feminine appeal to the heart and imagination in the mode of her famed persona, “Mrs. Hemans.” The gulf between Hemans’s published and unpublished poetry registers cultural shifts in early nineteenth-century conceptions of science and literature, as well as women’s involvement in science. Further, her decision not to publish her scientific poems reveals her calculated

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influence on changing expectations of women writers and notions of feminine propriety that precluded the erudite use of natural history in women’s serious poetry.

**Hemans’s Unpublished, Geological “Wildnesses”**

After Hemans’s death, Chorley published for the first time her “Epitaph on…a Celebrated Mineralogist” in his biographical *Memorials of Mrs. Hemans* (1836). He explains that the epitaph exemplifies “her livelier humour – the same which in a freak had absolutely made her set one side of a furze-covered Welsh hill on fire, when abroad on a party of pleasure,” and discloses that “none, however, of her ‘wildnesses’…have been published. Many were destroyed as soon as the effervescence of the moment in which they were produced had subsided” (47). Three years later, Hemans’s sister, Harriet Browne Owen, under the pseudonym of Mrs. Hughes, wrote a second biography of Hemans’s life, including this epitaph and a related, previously unpublished poem, Hemans’s “Epitaph on the Hammer of the Aforesaid Mineralogist.” Just as Chorley describes Hemans’s unpublished poems of this kind as “wildnesses,” indicating a “humour” incompatible with the public perception of “Mrs. Hemans” and thus meriting destruction, Owen writes, “As may easily be supposed, [these poems] were never intended for publication, but were merely a *jeu d’esprit* of the moment” (46). In private correspondence, Owen reveals that the epitaph’s mineralogist is C. Pleydell N. Wilton, and that “during one of those ‘mountain rambles’ so delightfully enlivened by the wit & good humour of Mrs. Hemans,” in the midst of searching for geological specimens, “[t]his gentleman unfortunately fell off a rock, while in the act of exclaiming ‘Ocular

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327 Gary Kelly also discusses Hemans’s decision not to publish “overtly satirico-political verse,” such as “The Army” and “Reform,” because they “would have been considered by many to be unfeminine” (*Felicia Hemans: Selected Poems, Prose, and Letters*, 21).
demonstration’." Wilton, who later held clerical posts in New South Wales and Newcastle, survived his fall and was very much alive to receive these entertaining epitaphs from Hemans just before he embarked for his studies at Cambridge University in the summer of 1816.

In her poem on this “Celebrated Mineralogist,” which I quote in full, Hemans illuminates mineralogical specimens and geological processes to witty effect:

Stop, passenger! a wondrous tale to list—

Here lies a famous Mineralogist.

Famous indeed! such traces of his power,

He’s left from Penmaenbach to Penmaenmawr,

Such caves, and chasms, and fissures in the rocks,

His works resemble those of earthquake shocks;

And future ages very much may wonder

What mighty giant rent the hills asunder,

Or whether Lucifer himself had ne’er

Gone with his crew to play at foot-ball there.

His fossils, flints, and spars, of every hue,

With him, good reader, here lie buried too—

Sweet specimens! which, toiling to obtain,

He split huge cliffs, like so much wood, in twain.

We knew, so great the fuss he made about them,

Alive or dead, he ne’er would rest without them,

\footnote{328 National Library of Scotland manuscript letter.}
So, to secure soft slumber to his bones,
We paved his grave with all his favourite stones.
His much-loved hammer’s resting by his side;
Each hand contains a shell-fish petrified:
His mouth a piece of pudding-stone incloses,
And at his feet a lump of coal reposes:
Sure he was born beneath some lucky planet—
His very coffin-plate is made of granite.

Weep not, good reader! he is truly blest
Amidst chalcedony and quartz to rest:
Weep not for him! But envied be his doom,
Whose tomb, though small, for all he loved had room:
And, O ye rocks!—schist, gneiss, whate’er ye be,
Ye varied strata!—names too hard for me—
Sing, “Oh, be joyful!” for your direst foe,
By death’s fell hammer, is at length laid low.
Ne’er on your spoils again shall W’— riot,
Clear up your cloudy brows, and rest in quiet—
He sleeps—no longer planning hostile actions,
As cold as any of his petrifactions;
Enshrined in specimens of every hue,
Too tranquil e’en to dream, ye rocks, of you.
Hemans’s verses on “fossils, flints, and spars,” granite, chalcedony, quartz, schist, gneiss, strata, and various other materials and concepts associated with geology, display a tone, topic, and specificity that her posthumous editors, and apparently Hemans herself, viewed as unbecoming of a serious female poet and thus inappropriate for publication. Hemans comically portrays Wilton as single-handedly producing geological cataclysms with his hammer, conjuring up Georges Cuvier’s catastrophist theories of sudden and violent geological revolutions or changes of the earth so that Wilton’s “works resemble those of earthquake shocks” (l. 6). In Hemans’s depiction, the mineralogist must destroy the earth to gain knowledge of it. Contemporary geologists including Cuvier and William Buckland theorized that the formation of “caves, and chasms, and fissures,” which Hemans attributes to Wilton’s brute force, resulted from floods, volcanoes, and other natural cataclysms that caused successive destructions of the earth and extinctions of species.

In this early poem, Hemans associates Lucifer with geology’s underground explorations and revelations of histories of the earth. She thereby anticipates the religious concerns of Byron’s *Cain* and Buckland’s manuscript geological poetry examined in the previous chapter. As Byron’s verse drama exploits when his Lucifer exhibits past catastrophes to precipitate Cain’s rejection of God, geology could appear threateningly atheistic in causing humanity to question the purpose of a world filled with devastation and extinction. Even in her jest, presenting Hades as the underground territory of geologists as well as of Lucifer, Hemans’s allusion to this satanic potential signifies an audacious move for the woman writer. It also contrasts with Wilton’s own later poem, “Geology,” which opens his short volume, *Geology and Other Poems* (1818),
in a pious, didactic form that includes long scientific endnotes and begins with an
apostrophe to God and the Holy Trinity, immediately placing this science within a
devoutly Christian context. Many contemporary geological sites referenced Lucifer, such
as Derbyshire’s Devil’s Peak (also known as Devil’s Cave, Devil’s Bottom, and Devil’s
Arse).\textsuperscript{329} By describing Wilton as “split[ting] huge cliffs…in twain” with his hammer,
Hemans converts him into a colossal, “mighty giant” and conceivably blasphemous
figure akin to Lucifer, usurping God’s power to enact, in this case, geological
catastrophes.

Interestingly, her second stanza portrays this supposedly lifeless mineralogist as
surrounded by geological equivalents of domestic comforts, such as fossilized culinary
delicacies, so that “Each hand contains a shell-fish petrified: / His mouth a piece of
pudding-stone incloses,” and his feet are warmed by “a lump of coal.” This imaginative
application of the names of natural objects, such as “pudding-stone,” is reminiscent of
Charlotte Smith’s earlier poem, “Flora,” where, for instance, she employs “Moss
Saxifrage, commonly called Ladies’ cushion” as the seat of the goddess Flora’s car. By
likening food, the splitting of wood, and comfort of a fire to geological methods and
materials, Hemans domesticates the science, creating out of Wilton’s tomb the private
space of home. However, in contrast with her later, more serious poetry, Hemans here
subordinates domestic allusions to science so that natural history remains the principal
focus while domesticity adds to the verses’ ludicrous tone which, as Susan Wolfson
delineates, is emphasized by “the playful pentameter couplets – peppered with nearly
hudibrastic rhymes – and parodies of elegiac conventions and tropes.”\textsuperscript{330}

\textsuperscript{329} For further discussion of Devil’s Cave, see Herringman’s \textit{Romantic Rocks, Aesthetic Geology}, 245-51.
\textsuperscript{330} Wolfson 16.
In the poem’s final stanza, Hemans modestly disclaims geological acumen, undercutting her naming of particular kinds of rock with statements of “whate’er ye be” and “names too hard for me” while displaying that she does possess this information. Her self-deprecating gestures within this satire work both to include and exclude Hemans from knowledge of geological studies, for, to some extent, one must be *in* on the joke to *make* the joke. This mode of humor echoes that of some of her female predecessors in scientific literature. Just as Barbauld, in her poem, “The Invitation,” transforms naturalists into natural objects for her own study, Hemans likens the expired Wilton to a mineralogical specimen for future discovery and analysis. By sardonically observing male observers of nature, these female poets turn the tables on a scientific discourse that often conflates *women* with natural objects. In the end, Hemans depicts Wilton as entombed within the very rocks he once sought and studied, a buried fossil himself, “[a]s cold as any of his petrifactions.” Hemans’s tongue-in-cheek style allows her, as it did many women writers of the previous generation, to assume a removed and objective sense of scientific participation, capable of enjoying its lighthearted as well as more studious aspects. In this regard, Hemans’s humor also, perhaps less expectedly, anticipates verse techniques self-reflexively practiced by geologists themselves.

“A Monument Raised to Himself”: Geologists’ Poetry

Hemans’s epitaph participates in a satirically scientific genre of poetry that became popular among geologists in the early nineteenth century. As demonstrated in my discussion of Mary Shelley, English geologists such as William Buckland sometimes wrote verses in reaction to potentially damaging portrayals of geology in the literature of,
for instance, Percy Shelley and Byron. Geologists also employed their verses as an aspirational genre, exploring how they wished themselves and their developing discipline perceived. Just as Hemans did not publish her geological “wildnesses,” neither did geologists generally publish their experimental, jocular verses, but rather circulated them in manuscript or in privately printed broadsheets. This suggests that the withholding from publication of such poems was not solely a matter of Hemans’s gender, but also rooted in concerns of religion, tone, and shifting aesthetic tastes in the first quarter of the nineteenth century, partly indicated in the gradual depopularization of didactic scientific verses like those of Erasmus Darwin. Indeed, although there is no evidence that the scientists at Oxford were aware of Hemans’s epitaphs, her verses forecast certain poetic trends among English geologists. Unwilling to let such poems go unknown, Charles Daubeny, professor of chemistry and of botany at Oxford, collected together a number of geologists’ manuscript poems, spanning from the 1820s through the 1860s for publication in a volume titled, *Fugitive Poems connected with Natural History and Physical Science* (1869). This collection includes satirical verses about, for instance, mastodons, trilobites, fossil caves, “the origin of species,” and “the fate of the dodo.” With striking similarity to Hemans’s epitaphs on Wilton and on his hammer, *Fugitive Poems* contains comical verses about Buckland, such as William Conybeare’s “Ode to a Professor’s Hammer” and Richard Whately’s “Elegy Intended for Professor Buckland,” dated December 1820, and thus thirty-six years before Buckland’s actual death in 1856.

Whately’s elegy on Buckland, written at least four years after Hemans’s epitaph on Wilton, envisions its defunct geologist as a geological specimen. Predicting a

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331 See Ralph O’Connor, *Earth on Show*, 81-5, for further discussion of this fascinating corpus of geological verse.
different fate for Buckland than Hemans earlier imagined for her mineralogist friend, Whately wonders:

Where shall we our great Professor inter,
That in peace may rest his bones?
If we hew him a rocky sepulcher,
He’ll rise and break the stones.
And examine each stratum that lies around—
For he is quite in his element underground….

Then exposed to the drip of some case-hardening spring,
His carcase let stalactite cover,
And to Oxford the petrified sage let us bring,
When he is incrusted all over;
There, ‘mid mammoths and crocodiles, high on a shelf,
Let him stand as a monument raised to himself.  (ll. 21-6, 33-8)

While Hemans’s Wilton rests comfortably in death when encompassed by his mineralogical finds, Whately describes Buckland’s corpse as restless in such a geologically-rich environment. Unlike Hemans’s simile describing Wilton, “as cold as any of his petrifactions,” Whately literally “petrifie[s]” Buckland’s corpse as the single means to prevent it from reviving (italics mine). Eager even in death to examine his geological surroundings, Buckland becomes incapacitated only when calcified into a “stalactite,” forever standing erect in the figure of an eerie “monument raised to himself.” Moreover, rather than placing this statue-Buckland in a location of public viewing or
reverence, Whately imagines it sequestered and catalogued “high on a shelf” as merely another fossilized specimen, kept simply for the sake of collection, and all but forgotten. Whately, like other geologists of his day, thus displays a paradoxical confidence in his discipline, portraying this science, as well as one of its best-known thinkers, as simultaneously everlasting and negligible. Conflating Buckland with the many stalactite-encased extinct species he unearthed, Whately symbolizes professional progress as both inconsequential and unstoppable except through a sort of self-destruction, a human extinction through geological processes. In her later poem, “The Image in Lava,” Hemans describes another rock-enclosed “carcase” and victim of geological disaster that raises similar questions about its relative importance and duration while embodying a “monument” of a different kind.

A “Print Upon the Dust”: A Natural History of Woman’s Love

Perhaps the most important distinction separating Hemans’s poem, “The Image in Lava,” from her earlier epitaphs and from poems by geologists such as Whately and Conybeare is that she intended these verses for publication. Included in Records of Woman (1828), and thus published over a decade after she wrote the geological epitaphs, her “Image in Lava” differently approaches the incorporation of science into poetry, adopting a more serious, elevated, and feminine tone. As Hemans’s note to the poem explains, its title and content refer to “The impression of a woman’s form, with an infant clasped to the bosom, found at the uncovering of Herculaneum,” a city which, along with Pompeii, was buried in the sudden and catastrophic volcanic eruption of Mount Vesuvius in A.D. 79. Surprised by this disaster, many of these cities’ inhabitants did not have time
to escape from the toxic gas as well as the pumice and volcanic ash that rained down from the eruption, searing skin and asphyxiating these unfortunate victims. Among those killed was the famous naturalist, Pliny the Elder, who ventured too close in pursuit of scientific data.\textsuperscript{332} It was not until 1709 that Herculaneum was discovered, “and Pompeii in 1748, with major excavations from 1763 to 1820.”\textsuperscript{333} Over time, buried human frames left hollow impressions in the now-hardened ash and pumice as these bodies decomposed. Notably, while Hemans places in Herculaneum this “impression of a woman’s form, with an infant,” current scientific evidence suggests that the figure more likely resided in Pompeii. A recent study explains that

the people of Herculaneum did not die from asphyxiation, as in Pompeii, but due to rapid exposure to the intense heat that developed from…the immediate boiling and vaporization of their organic liquids and tissues….This is why in Herculaneum the layer of ash did not reveal cavities corresponding to the bodies of victims, a situation that in Pompeii made it possible to reconstruct figures by pouring plaster into spaces that had been left by the progressive disintegration of human tissue around the skeletons (102).

It is therefore tempting to identify Hemans’s “image” as a Pompeian, rather than a Herculanean, figure. Indeed, a specific female victim discovered in Pompeii seems likely to have inspired Hemans’s description, for “[i]n 1812, along the Via delle Tombe, near the Villa of Diomedes, the body of a young, bejeweled woman was found, hugging her small child to her chest” (118).

\textsuperscript{332} See \textit{Vesuvius A.D. 79}, 77-82.
\textsuperscript{333} Wolfson 424.
Figure 4: Skeleton of woman found at Herculaneum, known as the “Ring Lady” because of the jewelry found with her. This displays that the effects of intense heat vaporized her organic tissues, producing no body cavity in decomposition, and thus contrasting with the Pompeii figure below. Image from Wikimedia Commons.
Figure 5: Plaster cast made from the impression of body cavities of a mother and child (on right) found in Pompeii. Photo courtesy of Michael Binns. ©Jackie and Bob Dunn pompeiiinpictures.com.
Although Hemans learned Italian, as well as French, Portuguese, Spanish, Latin, and German, and several of her family members, including her estranged husband and eldest sons, moved to Italy, she likely knew of this natural “image” by reading accounts of the excavations. Isobel Armstrong notes that “In 1827 The Times of July 4 and July 16 carried reports of new finds at Pompeii.”\(^{334}\) In the 1860s, excavators began creating plaster casts from the sites’ impressions of human forms, but of course these did not exist when Hemans published her poem in 1828 and she describes the “image” simply as a “seal,” a “print upon the dust.”

To some extent, Hemans’s poem depends on her readers’ knowledge of the pyroclastic processes that created this “image in lava,” the ash and pumice rock resulting from lava flows. Yet her treatment of geology here is much less specific or erudite than in her earlier, unpublished works. Hemans’s depiction of a catastrophic destruction that preserves in ashes the tender relation between mother and child dominates the verse, subordinating scientific concerns to those of domesticity. Through its focus on this domestic relationship, Hemans’s poem brings to life this woman and child, figures whom history traditionally overlooks. Ironically, their destruction is also these two individuals’ survival, for the rock in which they are encapsulated preserves them, as well as their culture, for future analysis and understanding. Unlike Whately’s embodied “monument” of Buckland which, “high on a shelf,” acquires no significance after the geologist’s death, Hemans’s “image” invigorates tropes of immortality in both nature and art. She celebrates lived, domestic history, and addresses the geological details of this immortalization only by implication:

Thou thing of years departed!
What ages have gone by,
Since here the mournful seal was set
By love and agony!

Temple and tower have moulder’d,
Empires from earth have pass’d,—
And woman’s heart hath left a trace
Those glories to outlast!

And childhood’s fragile image
Thus fearfully enshrín’d,
Survives the proud memorials rear’d
By conquerors of mankind.

Babe! wert thou brightly slumbering
Upon thy mother’s breast,
When suddenly the fiery tomb
Shut round each gentle guest?

A strange dark fate o’ertook you,
Fair babe and loving heart!
One moment of a thousand pangs—
Yet better than to part!

Haply of that fond bosom,
On ashes here impress’d,
Thou wert the only treasure, child!
Whereon a hope might rest.

Perchance all vainly lavish’d,
Its other love had been,
And where it trusted, nought remain’d
But thorns on which to lean.

Far better then to perish,
Thy form within its clasp,
Than live and lose thee, precious one!
From that impassion’d grasp.

Oh! I could pass all relics
Left by the pomps of old,
To gaze on this rude monument,
Cast in affection’s mould.

Love, human love! what art thou?
Thy print upon the dust
Outlives the cities of renown
Wherein the mighty trust!

Immortal, oh! immortal
Thou art, whose earthly glow
Hath given these ashes holiness—
It must, it must be so!

The geological aspects of the poem, though ever-present, occasion little or no scientific thought and virtually disappear from notice within Hemans’s imaginative reconstruction of the relationship between mother and child. From the beginning, Hemans sets up a gender division, associating the private realm with “woman’s heart,” capable of outlasting the public and masculine fame of “proud memorials rear’d / By conquerors of mankind” (ll. 7, 11-2). Rather than being intangible and ephemeral, love emerges as more permanent than the monuments of empires and civilizations. Preserved by nature, this “image” transcends culture and appropriates for the feminine an ability to represent the “human” more generally in “Love, human love!” Hemans draws attention to the image’s value as a natural object that becomes, in a sense, artificial, becomes art, and a symbol or “monument” of that transcendent “heart,” speaking across particularities of time and space.

Critics such as Julie Melnyk have explored Byron’s early influence over Hemans’s poetry, as well as Hemans’s later exchange of Byron for Wordsworth as her
poetic model.\footnote{Julie Melnyk, “William Wordsworth and Felicia Hemans” in Fellow Romantics: Male and Female British Writers, 1790-1835, ed. Beth Lau (2009): 143-4.} Byron’s geologically-satirical \textit{Cain} influenced Mary Shelley’s scientific writings, but Hemans, learning of Byron’s personal improprieties and of his scathing remarks on herself and on her verse in Moore’s biography of Byron, turned to Wordsworth as displaying a compatibility between poetry and the domestic sphere that she could further develop in her own works. Indeed, as Angela Leighton remarks, Hemans “ventriloquizes the work of her most admired contemporaries and reproduces it with technical efficiency,” while constantly subjecting “the imaginative landscapes of Romanticism…to the critical and social bias of the woman.”\footnote{Angela Leighton, \textit{Victorian Women Poets: Writing Against the Heart} (UP Virginia, 1992) 21.}

In many ways, Hemans’s published poetry compares more readily with that of her male contemporaries than with her earlier geological epitaphs. Her ekphrastic image in this later poem harbors particularly pertinent similarities with Keats’s \textit{Ode on a Grecian Urn} (1819).\footnote{Kathleen Lundeen also explores similarities between these two poems in her article, “‘When Life Becomes Art’ – On Hemans’s ‘Image in Lava’,” \textit{Érudit: Romanticism on the Net} 29-30 (February-May 2003).} Although Hemans expresses a dichotomy between the ruins of empire and the permanence of domestic affection, she imagines the possibility of ruin creeping into the private sphere as well: the collapse of this relationship between mother and child that would occur if the child lived to maturity. By becoming the “image,” suspended in time, in this sexually-charged “moment of a thousand pangs,” the relationship’s painful separation will never come. As on Keats’s urn, there is no growing old, no possibility of future change and disappointment. Yet, unlike the static moment of Keats’s urn that endlessly defers the lovers’ passionate consummation, here mother and child embody the impassioned moment forever. Rather than eternal longing and anticipation, it is an
eternal realization – an eternal ecstasy and “agony” of maternal love. In their death and preservation, the “image” arguably fulfills a mother’s selfish wish to keep the child young, loving, and dependent, always. Hemans’s two human figures, forming a single image, simultaneously are self-contained as one another’s entire world and model a transcendent ideal, a lasting symbol of intensity and purity in attained “affection.”

Hemans accentuates this symbolism in the poem’s final stanza where, in the phrase “Thou art,” “art” functions both as a form of the verb “to be” and also, of course, as the art of the artist. She employs the idea of art’s immortality, but instead of an outside laboring artist being remembered through his work, the creation and creator are fused. The woman both holds her “art,” her child, in her arms and is her own message to posterity; she is her own immortality. When, in the poem’s final line, Hemans presses that “It must, it must be so!” she affirms the power and permanence of woman’s affection, of human love, and yet the repetition betrays doubt, an effort to convince herself of love’s efficacy that undermines this authoritative claim. She casts the image’s power as a “holiness,” as spiritual rather than political or scientific, and thus more easily connected with the home. The poem’s immortalization of “woman’s heart” displays the feminine propriety audiences associated with the work of “Mrs. Hemans,” and its prominent domesticity overwhelms the verses’ obvious but unexplored scientific potential.

Incongruities between Hemans’s unpublished and published geological verses illustrate the changes in women’s integration of natural history and literature, and especially serious poetry. According to Leighton, Hemans “accepts rather than rebels against the limitations of her gender,” and becomes “one of the true originators of a line
of poetry” that, through “the exclusion of money, sex, power and, as it were, imaginative insensibility from the poetic consciousness of women” marks “a more general, moral protection campaign of Victorian womanhood.” Science may be added to the list of pursuits Hemans largely excludes from her published works. Her boldly playful, scientific, and unpublished epitaphs markedly differ from the serious and feminine “Image in Lava” which she meant for public consumption, contributing to Victorian ideals of feminine propriety that would influence subsequent female writers such as L.E.L., Christina Rossetti, and Elizabeth Barrett Browning. Rather than science, Hemans’s published works emphasize religion and the domestic sphere. Her poetry reflects an evolution in Romantic-era aesthetics that responds to and further ensured the depopularization of didactic scientific verses like those of the era’s earlier women writers and of Erasmus Darwin.


In her published poetry, Hemans’s use of science resembles that of Wordsworth more than that of Darwin or Charlotte Smith. Geological references in the published verses of Wordsworth and of Hemans rely upon metaphor and imagination, not the learned or didactic exploration of their scientific subject that each displays elsewhere. Just as Hemans exhibited her geological knowledge in her unpublished verses, “[i]nstances of Wordsworth’s knowledge of the names and descriptions of rocks and their constituent minerals are infrequent” in his poetry, but fully demonstrated in his prose topographic description of the Lake District, A Guide to the Lakes (1810).

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338 Leighton, Victorian Women Poets, 2, 3.
Wordsworth’s most often cited poetic allusions to geology occurs in “Resolution and Independence” (1807), where the speaker describes the old Leech-gatherer:

As a huge stone is sometimes seen to lie
Couched on the bald top of an eminence;
Wonder to all who do the same espy,
By what means it could thither come, and whence;
So that it seems a thing endued with sense:
Like a sea-beast crawled forth, that on a shelf
Of rock or sand reposeth, there to sun itself (ll. 57-63).

In their respective texts, Alan Bewell and Noah Heringman analyze this stanza’s reference to glacial erratics, explaining the contemporary opinion that only the biblical Deluge could transport non-native boulders, as well as foreign, now-fossilized marine and fauna remains to inland locations. Bewell portrays the sea-beast’s assimilation to stone as transforming it into a fossil, a mediating image of sentiency in correlating the Leech-gatherer with rock. By describing “this Man; not all alive nor dead,” as an antediluvian “stone” or living fossil, Wordsworth conjures up his era’s geological theories of catastrophism, as well as the indefinite expansion of time into the distant past, further emphasized in the depiction of the old man’s body, “bent double, feet and head / coming together in life’s pilgrimage,” like the serpent with its tail in its mouth, symbolizing eternity, and aesthetically appropriating science’s inspirations of “wonder” through seemingly ungraspable events and temporalities. In his geological allusions, Wordsworth eschews technical language and scientific footnotes, relying on vague

341 Bewell 266.
comparisons to “a huge stone” and “sea-beast” to imbue the Leech-gatherer with an obliquely scientific brand of awe.

As Hemans would later do in “The Image in Lava,” Wordsworth’s depiction collapses the boundaries between the human, nature, and art, as well as between life and death, public and private. According to the young Wordsworth, accurate natural description and natural history’s attention to minute details threatened both imaginative poetry and humanity’s potential for sensation and sympathy, for “‘solitary objects… beheld / In disconnection’ are ‘dead and spiritless’, and division, breaking down ‘all grandeur’ into successive ‘littleness’, is opposed to man’s proper spiritual condition, in which ‘All things shall live in us and we shall live / In all things that surround us.’” Taxonomic division has no place in this spiritual communion. Later in life, Wordsworth retained this sense of spirituality’s importance while reevaluating what constituted success in scientific pursuits. In 1829, he delineated two separate categories of scientists, disapproving of naturalists concerned with “a bare collection of facts for their own sake, or to be applied merely to the material uses of life,” while “venerat[ing]” those naturalists who bend their work toward “elevating the mind of God.”

Especially as his spirituality became increasingly orthodox, Wordsworth appealed to Hemans as a mentor whose poetry modeled religious interactions with nature which she could then incorporate and alter for her own purposes. Hemans published her poem, “To Wordsworth,” in the Literary Magnet in 1826, visited the older poet in the summer of 1830, and dedicated to him her verse volume, Scenes and Hymns of Life; with other

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Religious Poems (1834). For both his personal and poetic ease within the domestic sphere, she called Wordsworth “the true Poet of Home.” Melnyk argues that Hemans’s admiration for the older poet “allowed her to recuperate the vatic poetry of his early maturity for a new age and for a woman poet by extending and expanding the tendencies of Wordsworth’s own poetic development toward a more Christian and even more domestic vision.”

Illustrating Hemans’s overt adoption and adaption of Wordsworth’s versifications of the natural world, I examine her poem, “Wood Walk and Hymn” (1834), which employs the closing lines of Wordsworth’s “Nutting” as its epigraph:

Move along these shades

In gentleness of heart: with gentle hand

Touch—for there is a spirit in the woods.”

Hemans composes the work as a dialogue that occurs between a father and his child while walking through the forest and naming, and sometimes describing, a number of trees and plants, including aspens, chestnut, eglantine, violets, cowslips, woodbine, arum, passion-flower, wood-hyacinth, and anemone. Unlike the didactically scientific goals of similar dialogues written by some of her female predecessors to impart botanical nomenclature and anatomy, Hemans’s primary aim is to appropriate and Christianize Wordsworth’s “spirit in the woods.” In doing so, she relies on a form of natural theology that inspires thoughts of God through attention to nature, but without reference to science. Instead of science, Hemans cites “the peasant’s legend” and other sources of folklore that affiliate these plants with Christianity. For instance, Father explains that “rustic[s]” attribute the aspen’s “for ever trembling” leaves, its “restlessness” to their

344 Melnyk 140.
345 Melnyk 145.
notion that Christ’s cross “Was framed of aspen wood” (ll. 9, 10, 13). Assuring the child that, through enlightened Christianity, “We walk in clearer light,” Father nevertheless admits “a lingering love” of reading these religious “characters” “[o]n rock, on herb, and flower” (ll. 19-20, 21, 22, 28). Hemans’s poem thus highlights plants’ Christian “characters,” rather than characters enabling naturalists’ classifications of those natural objects.

When parent and child reach “the very inmost heart / Of the old wood,” Father contrasts “the days / Of pagan visions” with present knowledge of “our God, a Spirit; who requires / Heart-worship, given in spirit and in truth” (ll. 74-5, 81-2, 90-2). In obvious reply to Wordsworth’s lines, the child in Hemans’s poem recites a “Wood Hymn” that affirms, “Yes…. / There is a power, a presence in the woods,” for “Thou, thou art here, my God!,” thus reframing Wordsworth’s conclusion in the context of Christianity (ll. 128-9, 133). In her published verses, Hemans, like Wordsworth, avoids an appearance of serious scientific participation and spiritualizes or Christianizes nature in a way that would become increasingly incompatible with science throughout the nineteenth century.

**Religious Renovations and the Professionalization of Literature**

In Chapter six I illustrated the nineteenth century’s growing hostility between religion and the natural sciences through Mary Shelley’s *The Last Man*. Eighteenth-century naturalists presented natural history as virtually inseparable from natural theology, justifying their studies of nature with its contribution to humanity’s understanding of God; my project’s first generation of women writers thus could engage
with the natural sciences and even exploit where natural inquiries most challenged Christian orthodoxy (as in discussions of hybridity) and remain securely within a discourse taking for granted nature’s divine evidence and function. Religio-scientific concerns especially thrived in Britain where, for instance, early nineteenth-century geologists including Robert Jameson and Buckland emphasized the Christian compatibility of ideas from less spiritually-troubled colleagues on the continent, such as Cuvier. As the natural sciences became specialized, these disciplines (particularly geology) brought scriptural assertions into doubt regarding, for example, the age of the earth and the creation of species, including humans. Following France’s Reign of Terror, British society became less tolerant of arguments for equality in gender, race, class, or otherwise. Science’s concurrent challenges to traditional beliefs, combined with industrial progress and continuing devastation in the Napoleonic wars, generated a reading audience longing for the patriotic stability, continuity, and comfort that writers such as Hemans represented as attainable in the British home. By the 1820s and ‘30s, scientific disputes with religious orthodoxy produced growing dissonance, moving toward modern manifestations of the controversy now inherent to the subject.

With science’s increasing professionalization and secularization, the natural sciences no longer presented a viable option for poetic expressions of cultural authority. Although less gender-specific causes contributed to nineteenth-century divergences between science and literature, ruptures between religion and science, the pervading conservatism of British society, and women’s exclusion from scientific specialization, all helped ensure that women’s literary focus shifted away from science and toward more thoroughly religious and domestic themes as a means to cultural influence as well as
literary success. As Cynthia Scheinberg argues, religion functioned “as a site of power and sustenance for Victorian women, both personally and publicly.” According to her, Victorian women writers such as Hemans rejected the model of “poet as prophet” so crucial to the male tradition of Romanticism, and adopted instead a poetic identity rooted in an understanding of “poetry as theology” in which women could claim “Christian poetic authority through the discourse of the heart” (51).

Of course this is not to say that Hemans and the succeeding generation of women writers entirely ceased referencing the natural sciences in their poetry. As I have shown, Hemans’s “Image,” however indirectly, draws on geology, and she elsewhere adheres to conventions of natural theology, as in her verse Hymns on the Works of Nature (1827). In Letitia Landon’s poetic volume, Flowers of Loveliness (1838), which may be exemplified by “The Night-Blowing Convulvus,” the identification between flowers and women reinforces a pervasive feeling of being trapped, oppressed, earth-bound, and claustrophobic, so that women’s condition reflects plants’ rootedness to the spot. She uses the flower as a starting point, and then transcends it, not to soar to sublime and philosophical heights like Wordsworth, but to elucidate women’s domestic trials and inability to transcend their material situations. Christina Rossetti’s “Goblin Market” (1862) also displays interest in natural history as the goblin men represent zoological species from various colonies within the British Empire. When Laura cries over the barren seed of her exotic fruit, Rossetti gestures toward botanists’ difficulty sustaining, even in hot-houses, valuable plants brought back from these tropical locations. Cautioning about the global aims of natural history and imperialism, Rossetti urges that

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Britons, and particularly women, turn their attention toward aiding one another in charitable domestic goals.

Although literature and science continued to inform one another throughout the nineteenth century, with the professionalization of both realms, serious poets avoided the sense of actual participation or didacticism in the natural sciences. By contrast, the popularity of Christian poetry may be demonstrated by John Keble’s volume of verse, *The Christian Year* (1827), which outsold all books of poetry in his era, with the next largest market in verse belonging to women poets (19). Victorian novelists arguably engaged more specifically with science than their poetic counterparts. Natural-history books and essays continued to be bestsellers throughout the Romantic and Victorian eras, competing with novels for sales. George Eliot’s novels reference natural history, optics, positivism, and “a kind of abstract sociological descriptiveness derived from science.” However, “[n]ovels by Eliot, [Wilkie] Collins, Charlotte Brontë, Elizabeth Gaskell, and others are full of frustrated intellectual women,” acknowledging women’s exclusion from the specialized ranks of science and thus not encouraging its serious practice as the earlier generation of women writers had done (134).

Moreover, literary naturalism lost much of its appeal for writers of both sexes aspiring to high poetry because scientific accuracies now seemed a matter devoid of both “taste” and generic originality. As early as 1795, Anna Barbauld, in a work of literary criticism, described didactic poetry “as a species of inferior merit compared with those

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which are more peculiarly the work of the imagination.”

She exemplifies Erasmus Darwin’s *Botanic Garden* as among the best of these didactic works, tepidly praising his verse depiction of Richard Arkwright’s recently-invented cotton-carding engine, “a piece of mechanism as complete in its kind as that which he describes” (4). She complains that in recent years “hardly any branch of knowledge has been so abstruse, or so barren of delight as not to have afforded a subject to the Didactic Poet. Even the loathsomeness of disease and the dry maxims of medical knowledge have been decorated with the charms of poetry” (4). According to Barbauld, scientific poetry’s potential novelty already had been largely exhausted, and she admonishes that this verse should be abandoned for poetry of imagination unless some further didactic subject could be made “in itself attractive to the man of taste” (5).

Barbauld was not alone in her complaints. Indeed, as with most popular literary movements, the melding of natural history and literature became a site for satire almost as immediately as it began. Vincent Miller’s *The Man Plant: Or, Scheme for Increasing and Improving the British Breed* (1752) mocks Linnaean analogies between the animal and vegetable kingdoms, likening a gardener’s daughter, Sally, to a plant, seduced and productive of a human egg to be planted in the earth for eight months and taxonomized in the class *Dioecia*, order *Monandria*, and genus *Homo*. John Wilcot, under the pseudonym of Peter Pindar, published several literary caricatures of the naturalist, Joseph Banks, including “Sir Joseph Banks and the Boiled Fleas” (1790), in which Banks attempts to prove to the world that fleas are really lobsters, thus emphasizing the frivolity of some contemporary scientific inquiries. In 1798, George Canning’s *The Loves of the

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Triangles so perfectly parodied Darwin’s *The Loves of the Plants* that thenceforward the latter could be taken seriously only with great difficulty. As I have shown, even the writers and naturalists most earnestly invested in uniting science and literature often kept a sense of humor about their subject. However, by the early decades of the nineteenth century, in public satires of this genre, the laughter sounds more contemptuous than good natured. For instance, in 1812, the year following publication of Anna Seward’s personal correspondence, where she disapproves of Robert Southey’s stylistically-experimental *Thalaba* as unclassifiable within her poetic taxonomy, Southey published his own literary taxonomy, a “Classification of Novels,” in his *Omniana; or Horae Otiosiores* (1812), delineating that:

Novels may be arranged according to the botanical system of Linnaeus.

Monandria Monogynia is the usual class, most novels having one hero and one heroine. Sir Charles Grandison belongs to the Monandria Digynia. Those in which the families of the two lovers are at variance may be called Dioecious. The Cryptogamia are very numerous, so are the Polygamia.—Where the lady is in doubt which of her lovers to chuse, the tale is to be classed under the Icosandria. Where the party hesitates between love and duty, or avarice and ambition, Didynamia. Many are poisonous, few of any use, and far the greater number are annuals.”

Southey’s ridicule of novels extends to the Linnaean botanical system itself which, by this time, was in growing disfavor among naturalists who viewed its artificial classifications according to plants’ sexual character as inadequate to achieve a “natural”

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351 Robert Southey, *Omniana; or, Horae Otiosiores*, Vol. 1 (1812), 101. My thanks to Allison Cooper Davis for bringing this quote to my attention.
order. Moreover, Southey’s mockery seems calculated to critique interrelations between natural history and literature or criticism more generally as something absurd.

Throughout the nineteenth century, women continued to write religious and educational works, as well as travel narratives, on nature including Margaret Gatty’s religious *Parables from Nature* (1855), Arabella Buckley’s Darwinian account of ants in *Life and Her Children* (1881), and Mary Kingsley’s travel narratives that detail new species of fish in Africa. However, serious or didactic inclusion of natural history in high literature seemed, for women poets, an unfeminine and thus unprofitable detraction from their professional identities and, for novelists, a frustrating reminder of science’s professional inaccessibility for women. In the 1880s, a fascinating resurgence of women poets merging science and literature occurs, with particular attention to scientific nomenclature and Darwinian (Charles now, not Erasmus) evolution, in the verses of Constance Naden, Mathilde Blind, and May Kendall. Yet, five decades intervene between this later movement and the unique window of opportunity for integrating literature and natural history seized by the women of my project.

As we have seen, in the eighteenth and early nineteenth centuries, women’s literary naturalism enabled them to challenge the assertions of male professionals and suggest women’s supremacy in both poetry and science, as well as explore possibilities for literary originality. Employing natural history taxonomies as models for literary classification, they conceptualized a literary canon while creating or discovering new literary forms and inviting readers to help solve nature’s mysteries. In an era fraught with revolution and governmental anxieties, these women voiced support for various political

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views and social orders through scientific interpretations of nature. Evincing scientific authority, they could simultaneously envision alternative gender and social circumstances and critique masculine literary and scientific perspectives that neglected domestic, moral, or social obligations.

Although this movement did not survive beyond the 1830s, the women of my study attained a power of influence that helped shape the Romantic era and set the stage for succeeding generations, even where science no longer served as a source of women’s cultural authority. In so doing, they provoked both enthusiastic and negative responses from male and female writers alike, providing insight into overlaps and developing differences between eighteenth- and nineteenth-century literary and scientific networks and traditions in this moment of possibility for women and interdisciplinarity.
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