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Joanna Baillie and Sir John Herschel

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Joanna Baillie (1762-1851), the Scottish poet and dramatist, was raised in a family of scientists: her uncles, the renowned physicians and anatomists, William and John Hunter, and her brother, Matthew. In 1784, with her mother and sister, she moved to London to help Matthew attend to the anatomy collection bequeathed to him by his uncle, which became the Hunterian Museum associated with the Royal College of Surgeons. While living with him, she enjoyed the company of both scientists and artists, relationships that supported her own interest in human psychology. While her closest friends were writers, she maintained a lively correspondence with notable scientists, including a brief collaboration with the astronomer, John Herschel, himself a mathematician and astronomer who also wrote and translated poetry. These early Victorian scientists, Schweber observed, "were affected by the romanticism which polarized the outlook of that generation." They placed significant importance on their imaginative and emotional powers—many wrote poetry, including Whewell and Herschel—"and presented their poems to one another" for criticism (Schweber 27). The intellectual generation of which Herschel was an important part seemed to embrace everything; and Baillie, a Unitarian, may have found John Herschel a kindred religious spirit, since his Natural Philosophy was later noted in *The Christian Reformer; or, Unitarian Magazine* (1839) and in *The Unitarian Review and Religious Magazine* (1878).

Baillie had spent her early adulthood around the medical students who frequented the home of her uncle, anatomist and surgeon John Hunter. She met with scientists in all disciplines, including political economist Thomas Malthus, inventor and engineer Sir Samuel Bentham, surgeon John Ranicar Park, statistician Sir John Sinclair, chemist Sir Humphrey Davy, medical doctor William Beattie and others. She read and commented on their works as well. For example,

in an April, 1847, letter to the American biblical scholar Dr. Andrews Norton, she defended Malthus's population theory: "All that he says against early marriages is to prevent misery, and that young people should be brought up with the idea that, until they have earned enough to furnish a house it is not creditable to marry and that by the time this can be earned, the lovers will be of a proper age to be married without injuring

themselves or the community. . . . I knew Malthus, he used to come frequently to Hampstead to visit a Sister, and a most humane and unassuming good man he was" (Slagle 975-75). Baillie's expressed her own interest in science in letters and plays, such as *De Monfort*, *Ethwald*, *Orra* and other dramas that focus on the mental distress and physical manifestation of hatred, sociopathic ambition, fear, and so forth. Dr. Matthew Baillie's early explorations in neuroscience aroused his sister's curiosity about one's reactions (passions) to stressful emotional situations. Because of her family history, her transition into the scientific world was a natural one, and John Herschel's transition into her artistic world proved to be natural as well.

Astronomer and mathematician, John Frederick William Herschel, was the only child of Mary Baldwin Pitt Herschel and pioneering astronomer Sir William Herschel, who discovered the planet Uranus. In the early 19th century, Herschel's work began to be "widely known by the younger generation of Romantic writers," explained Richard Holmes, as Byron in particular became enthralled with his idea of an "evolutionary youth and age in the universe" (204-205). William Herschel's significance cannot be understated, and his only son pursued a similar scientific path.

A Cambridge graduate and fellow of the Royal Society, John Herschel occupied a crucial position in the history of British astronomy with his catalogues of double stars and nebulae, his 1833 *Treatise on Astronomy*, and his studies of Halley's comet in 1835-36 at the Cape of Good Hope. As a founding member of the Analytical Society, his mathematical research set the standards in England for generations. The "vital center of the intelligentsia," explains S. S. Schweber, was located in the "Cambridge network"; and "John Herschel stood at the apex of that elite" (1-2). John Herschel, Allan Chapman also claims, was the link between two traditions in British science, for he "was perhaps the last significant figure to devote himself wholly and full-time to fundamental research in astronomy and its related sciences on the strength of a private fortune," while emerging scientists in Britain were largely professionals who "earned their livings through academic science" (71).¹

Sir John Frederick William Herschel after the portrait by William James Ward (~1835)
Permission National Portrait Gallery, London: Joanna Baillie, by Sir William Newton.

Not only was John Herschel an “eclectic blend” of the sciences, as Chapman claims, but also he was an eclectic blend of philosophy and art. He was described early on as a prodigy in science and fond of poetry; and the breadth of his knowledge was so astounding that a contributor to his obituary in 1871 declared that “British science has sustained a loss greater than any which it has suffered since the death of Newton” (Robinson xvii). Buried close to Newton in Westminster Abbey, where Darwin would follow a decade later, John Herschel was significant in the field of astronomy, mathematics, and photography; but his observations on the philosophy of science also connected him closely to the Romantic scene unfolding in the early 19th century—one obituary writer even called him the Homer of science. Long after he had met Joanna Baillie and other writers, he concluded in his 1830 *Preliminary Discourse on the Study of Natural Philosophy* that “A mind which has once imbibed a taste for scientific enquiry, and has learnt the habit of applying its principles readily to the cases which occur, has within itself an inexhaustible source of pure and exciting contemplations: — one would think that Shakespeare had such a mind in view when he describes a contemplative man as finding all nature eloquent—the very trees, the brooks, and the stone reading to him lessons of deep and serious import” (Herschel 14-15).²

Herschel’s contemplative imagery was the product of a lifelong dedication to the arts, but his humanistic approach to science was not unlike many before him, for in Adam Smith’s posthumous essay on the *History of Astronomy*, the economist-historian-philosopher argued that mankind is awed by the unexpected, by the great or beautiful: “We wonder at all extraordinary and uncommon objects, at all the rarer phaenomena of nature, at meteors, comets, eclipses, at singular plants and animals, and at every thing, in short, with which we have before been either little or not at all acquainted; and we still wonder, though forewarned of what we are to see” (Smith 3-4). Smith cites Dryden’s poetical discovery of Iphigonia sleeping as example: “The fool of nature stood with stupid eyes / And gaping mouth, that testified surprise” (“Cymon and Iphigenia”). This is the kind of natural phenomenon that inspired both the poet and the scientist; the connection between science and the arts would only become strained later on.

In linking John Herschel to the arts, therefore, biographer Günther Buttman explains that “Herschel’s literary and musical inclinations, his love of gardening, his skill in drawing” resulted at middle age in his being a “well-rounded, stable, and completely happy man” in contrast to the more lonely scientific man he had been before his marriage to

the sociable Margaret Brodie Stewart (117). His interest in literature, however, “was not derived from his father,” writes Buttmann; for Dr. William Herschel once claimed to his friend, Dr. Charles Burney, that poetry was “an arrangement of fine words without any adherence to the truth” (117). Yet his son John clearly derived his love of music from his musically inclined father, whose own father had been an army musician in Hanover, Germany, who himself had played the flute in the army, and, when he arrived in the England, both composed music and conducted orchestras, the most notable being the one at Bath. John became a violinist and a flutist, and he even met German composer Felix Mendelssohn some time in the 1840s (171).

But John Herschel’s leisure time was devoted to poetry and translation. In 1842, he translated Friedrich von Schiller’s “The Walk,” a poem he “particularly liked because its evocations of nature reminded him of his own walks in the delightful countryside around Feldhausen” at the Cape. He sent a copy to Joanna Baillie and her sister, Agnes, in December of that year (both women then in their eighties), for which Joanna thanked Lady Herschel in a subsequent letter: “We received great pleasure from a certain little parcel some days ago, containing two copies of a Translation of Schiller’s Poem called ‘The Walk.’ . . . The Poem which is quite new to us, is full of beautiful description & deep reflection & sentiment; and though we know nothing of German, we feel quite assured, from the happy choice of words & expressions, that the Translator has done full justice to his beautiful subject. As to the metre, our gothic ears, quite unacquainted with Greek measure, must not pretend to give any opinion. But a friend of ours . . . has tried to enlighten us a little on this point, with what success I shant say.” (Slagle 790)³ Baillie’s friend, writer John Herman Merivale, was also translating Schiller’s poem was delighted with Herschel’s version. Herschel’s later translations included Schiller’s “Funeral Dirge of a Nadowessie,” “Saying of Confucius” and “Dithyramb,” along with August Bürger’s “Leonora” and Dante’s *Inferno* (Buttmann 172).⁴ At the age of seventy-four, his translation of Homer’s *Iliad*, while not universally well received (Tennyson called it a “burlesque barbarous experiment”), was a study in persistence of poetic structure, an experiment in English hexameters (186).

Herschel’s inclination to poetry was rooted in his philosophy of science and of the world—observing nature to understand self—an indirect connection to the philosophy of poetry. “No man,” wrote Samuel Coleridge in the first chapter of his *Biographia Literaria*, “was ever yet a great poet, without

being at the same time a profound philosopher.” And a hundred years ago, Harvard professor Ralph Barton Perry argued in “Poetry and Philosophy” that one was not a philosopher-poet because a philosophical doctrine could consistently be formulated from one’s writing, but “because his consciousness of life [was] informed with a sense of its universal bearings.” Who better to embrace this consciousness than an astronomer? While Perry declares that the “sensuous or suggestive values of nature” are captured by the poet’s “quick feeling for beauty” (577 and 588), a philosophical natural scientist such as John Herschel possessed the same propensity to make the transcendent connection to what nature afforded.

A great deal of Herschel’s early philosophical education came from his association with a Cambridge student group that included Charles Babbage, William Whewell and Richard Jones. The young scholars met on Sunday mornings to discuss the position of science in Britain, a parallel to Tennyson’s Cambridge Apostles who did the much same with literature and philosophy. In *The Philosophical Breakfast Club* (2011), Laura Snyder recounts Herschel’s dilemma in choosing his profession. No longer committed to his original decision to study law and already engaged in scientific pursuits, Herschel admitted to Babbage, “‘how ardently I wish I had ten lives, or that capacity, that enviable capacity of husbanding every atom of time, which some possess, and which enables them to do ten times as much in one life’” (qtd. in Snyder 54).⁵ By the end of his life, explained Snyder, Herschel had contributed to advances in astronomy, mathematics, the philosophy of science, photography and music. His “On Musical Scales,” for example, combined “his lifelong love of science and music” (350). When the Philosophical Breakfast Club began its assembly, explains Snyder, a chronicle of the sea, land and stars was almost nonexistent: “. . . when they finished, more of the world was mapped and understood. Before their work, maps of the stars of the southern hemisphere, the tides of the ocean, and England and Wales themselves were like the maps we associated with earlier eras. . . . Herschel, Whewell, and Jones captured parts of nature that had previously been unexplored, like the continents of centuries before; they filled in wide gaps in the knowledge of the world” (187-88).

Their philosophical discussions on science were not just abstractions; they were also concrete, as they focused on the need for an established “scientific method” (Snyder 3). Mutual interests connected them to the humanities as well.

Herschel often opened meetings of the Breakfast club quoting Francis Bacon (1561-1626) who believed that science should transform people's lives. "As for many early nineteenth-century men of science," argues James Brooke-Smith, the "holistic ideal was encapsulated by Francis Bacon's metaphor of the 'tree of knowledge,' a differentiated structure that incorporated diverse branches of learning under the sign of a fundamental unity" (Brooke-Smith 300). Poets believed that great literature should be part of that tree of knowledge. Herschel believed that "the hidden powers which work beneath the surface of things,' namely physical causes," had to be methodically traced and, "in Newton's wake, that one should aim for insight into a higher, divinely created and externally teleological causal order of nature that is not quite as directly revealed in the phenomena" (Greif 59). In his 1827, presidential address to the Astronomical Society of London, Herschel had noted that "The stars are the land-marks of the universe; and amidst the endless and complicated fluctuations of our system, seem placed by its Creator as guides and records, not merely to elevate our minds by the contemplation of what is vast, but to teach us to direct our actions by reference to what is immutable in his works" (Herschel, *Essays* 469). The workings of the "divine" was a topic of correspondence in June, 1847, long after Herschel's poetical contributions to Joanna Baillie's *A Collection of Poems, Chiefly Manuscript, and from Living Authors*, when the playwright wrote to him with the following concern. "My dear Sir John," she began,

The immense views of Creation given by the observations of the eminent Astronomers of our times . . . seems to be in great harmony with what the Scripture teaches when it speaks of our Savior as, by power derived from God, creating the World . . . and holding Spiritual rule over it. . . . Thinking on this subject with much satisfaction, I was surprised the other day to hear that your observations have led you to think that they favour the high Church doctrine of the Trinity. . . . Believing, as I do, that this orthodox doctrine . . . prevents more men . . . from being sincere Christians than all other difficulties put together, you will easily believe that this information gave me some little disturbance—some pain. (Slagle 792)

Clearly disturbed by this anxious dispatch from an old and respected friend, Herschel responded immediately on the back of her letter. "My dear Madam," he replied,

I cannot conceive how it can have been possible to make out any connection between any astro-

nomical observations of mine and any doctrine High or low about the Trinity. The only doctrine the contemplation of the Stars has ever impressed on my mind is that of the Power Wisdom and Goodness of God manifested on a scale of stupendous grandeur, and the insignificance of Man in every respect except in those moral & intellectual attributes which render him capable of contemplating these manifestations and worthy to do so which he is not to himself alone, and only by God's grace and favour. (Slagle 792)

Curious about how Baillie could have conceived such a notion, and defending his conviction, Herschel assured her that she should not let anything she had heard disturb her on his account. Her response just a few days later revealed that she had "heard it from one who is a good deal among people of science" and that it probably "took its rise from some body remarking that [Herschel] had made out a Trinity in the high attributes of the Deity, Power Wisdom & Goodness, or something to that amount" (Slagle 793-94). Writing from the standpoint of a Unitarian, Baillie in her 1831 *A View of the General Tenour of the New Testament Regarding the Nature and Dignity of Jesus Christ* had argued with the Bishop of Salisbury against the reality of a Trinity, much to her friend Walter Scott's chagrin, and she saw opinions to the contrary as irrational and detrimental to anyone who thought critically about Christianity. Baillie continued to correspond with Herschel as late as 1850, a year before her death, about his family and hers and about his reading her 1849 poem *Ahalya Bae*.

In addition to Herschel's letters to Charles Babbage, Humphry Davy, Michael Faraday, Maria Edgeworth and others, the Royal Society Library in London holds nine letters from Joanna Baillie to Herschel, one to Lady Herschel, and several from Joanna's sister, Agnes, and from her brother Matthew. In 1820, Herschel inquired about meeting Sir Walter Scott, who would be dining at her home soon, Baillie invited him to join them, sending her regards to his mother, father, and to his cousin, Mary Baldwin. In 1822, Baillie tapped into Herschel's creative genius, asking him to submit several poems for her forthcoming *Collection of Poems, Chiefly Manuscript, and from Living Authors*, a subscription edition of original collected poems to be published for the benefit of her widowed friend, Mrs. James Stirling. "All your learning & philosophy," she wrote to him in February, "has not I know prevented you from occasionally courting the Muses and very successfully too. Will you have the goodness to let me have one or two of your Ms poems to help to enrich a volume of Collected poems" (Slagle 787). While

many of her contributors asked to remain anonymous, she asked that Herschel allow her to put his name to his poems to enhance the integrity of the volume, although in the end his poems did appear anonymously. Herschel's love of writing poetry was just beginning, for he would have been only in his early thirties when he was composing for Baillie, and this experience would open him to further creative possibilities from the 1830s onward.

In admiration of his aunt, Caroline Herschel, herself a famous astronomer who allowed the child John to conduct experiments with her, Herschel supported women in all professions—accounting for his connection to writers such as Maria Edgeworth and Joanna Baillie. His 1833 *Quarterly Review* essay on mathematician/astronomer Mary Fairfax Somerville's *Mechanism of the Heavens* assessed her experiments as rational and free from all pretension and her acquired knowledge in "a useful and instructive form for others." We "know not the geometer in this country," wrote Herschel, "who might not reasonably congratulate himself on the execution of such a work" (Herschel, *Essays* 43). In his later life, his friendship with photographer Julia Margaret Cameron (great-aunt of Virginia Woolf) also flourished. Herschel, writes Snyder, sent Cameron "specimens of his photographs, and began to teach her the methods he had used to create them" (349 and 351). His intense way of seeing things inclined him to imagery; and while Baillie's request for poems may have resulted in one of Herschel's earliest forays into poetry, he did not disappoint her. She proved, however, to be a tough critic, not settling for poems that were below her standards. On February 22, 1822, Baillie made her initial request to Herschel: "Will you have the goodness to let me have one or two of your Ms poems to help to enrich a volume of Collected poems which I am going to edit for the benefit of a friend?" (Slagle 787). She underscored the importance of the volume by reporting that she also expected to receive contributions from Sir Walter Scott, Robert Southey, William Wordsworth, Thomas Campbell, Mrs. Grant of Laggan, Felicia Hemans and other "eminent persons."

Baillie was dedicated to this edition. She had just published her prodigious *Metrical Legends of Exalted Characters* (1821) and was between projects, a new play (*The Martyr*) not to be released until 1826. So she selected her poets carefully and edited critically. Herschel submitted five poems to Baillie from which she eventually selected three: "To the Lark," "The Sailor's Departure," and "The Lament," although all of these appeared anonymously in the final published volume, probably at Herschel's request. (Poems from many other contributors ap-

peared anonymously as well.) A short time after her initial request, Baillie received Herschel's first contribution of poems; nevertheless, although tactful, she was not quite satisfied:

Many thanks, my dear Sir, for the verses [you] have sent me. They would have been considered as good, composed under the most favourable circumstances, and in a Stage Coach with all that clatters about – scouring rooms & passages, they are wonderful. My Sister & M^{rs} Elliot[t] are clear for their being inserted in my Collection,⁶ and so should I, but for a hankering after something of your composition written with more deliberation and not in a subject connected with the arts; for it comes into my head that the same subject has been before the public in a poetical garb, not so well dressed, perhaps, but sufficiently so to be remembered. . . . Pray think upon this, and let me have something more to my fancy. . . . (Slagle 787-88)

Thus admonished, Herschel tried again. This time Baillie was pleased and, on May 18, responded "I received late last night your obliging letter with the packet, and have had the pleasure of reading it & the poems this morning. Many thanks to you! I like what you have sent me very much, and have retained 3 out of the 5 to be inserted in my Collection which I am sure will do it great credit. These are the Lark, which is a beautiful animated thing; the Lament & the Sailor's departure, both of them elegant & tender. . . . The defense you make against being supposed to hold poetry in light estimation, I cheerfully admit; and now we are, I hope good friends upon all points" (Slagle 789). She also assured him that while his remaining two poems were quite good, she now had so many manuscript poems from various contributors that she felt she must retain them "more sparingly."

These three early Herschel poems, then, appeared in the 1823 *Collection of Poems, Chiefly Manuscript, and from Living Authors*. "To the Lark," a poem in eight stanzas and in the style of Keats's "Nightingale," allows the poet to empathize momentarily with the lark whose "tranquil days glide smoothly by" (qtd. in Baillie 81-83).⁷ But also, much like Wordsworth's 1807 lament in "Intimations of Immortality," the poet finds himself unable to rekindle his earlier enthusiasm:

'Twas thus my earliest hopes aspired,
'Twas thus, with youthful ardour fired,
I vainly thought to soar:
To snatch from fate the dazzling prize,
Beyond the beam of vulgar eyes.—

—Alas! th' unbidden sigh will rise.
Those days shall dawn no more!

This seems an odd lament from a poet, a man just thirty, who was already a fellow of the Royal Society and gaining fame every day. There is a sorrow, even if a momentarily immature one, in Herschel's reflection on the loss of passion from his glorious life when "danced the heavenly train," even though he half hopes for "a second dawn." Images of the sky reflect his experience as an astronomer, but his hope is not entirely optimistic as he wishes in the end that he could share the lark's "ecstasies" while he does not entirely expect to do so.

"The Sailor's Departure," a shorter poem narrated by a sailor as he leaves his home for the sea, is both a lament on leaving elderly parents behind in "that parting embrace" and a prayer for that embrace ("That moment's good angel") to keep give him strength and keep him honorable while he is away:

Friends and protectors! when dangers surround
me,
When pleasure, when wealth spread their
lures for
My fame,
That moment's good angel shall hover around
me,
To chase every thought would dishonor
your name. (Baillie 142)

The images of elderly parents and travel, roaming "thro' the wide world," allude to Herschel's own family and to his penchant for travel that would lead to his later adventures at the Cape.

Finally, "The Lament" takes up Romantic melancholy as the poet haunts the "tranquil shore" of a lake around which "Emma's form shall grace no more" and asks,

. . . and do I live
To hover round our favourite spot
In vain o'er blighted hopes to grieve,
And joys that will not be forgot.

Herschel married Margaret Brodie Stewart in 1829, and was then in his late-thirties, so this could be a mysterious lover from an earlier time in his life—or, of course, she could be imaginary. Interestingly, however, Snyder reports that in the spring of 1821, Herschel fell in love with one of the daughters of Robert Lovell Gwatkin and Theophila Palmer, niece of Sir Joshua Reynolds, and even suspended his chemical and optical experiments for several

months. Although the Gwatkins had several daughters, Snyder speculates that it was their daughter Harriet, nearest his age, who was the object of Herschel's affection and to whom he proposed without his father's consent. For various reasons, the engagement was soon called off by the Gwatkins, and "Herschel barricaded himself in his dark room for days" (Snyder 69-70). Such a dramatic end to a young love affair could have inspired a lament for the lost "Emma" of this poem that ends,

Sweet lake! This brain where memory glows,—
This heart which throbs in anguish now,
Oh, that at length they might repose
As cold, as motionless as thou! (Baillie 192-93)

For this passionate narrator, only his own internment will ease the anguish of his loss. It seems odd that Baillie's only response to Herschel is that the poem is both "elegant & tender," but she might have felt that any further comment would be an invasion into the poet's privacy.

While there seems to be no extant correspondence between Herschel and Baillie during the 1830s when Herschel was at the Cape, a diary entry reveals that on January 1, 1837, he "Read Miss Baillie's Martyr" (Evans 273).⁸ His diary entries also mention novels by Maria Edgeworth and Ann Radcliffe, further proof of the scientist's eclectic taste. Additionally, writes Evans, the diaries reflect Herschel's "never failing ingenuity, the close observation of the world about him. Sometimes he reminds one of the White Knight with a 'little contrivance of my own,' sometimes of a ham actor with his condescensions and prejudices, sometimes of the corniest of comics with his hideous puns. Even so, this was a man worth knowing" (Evans xxviii). The diaries reflect what Noel Jackson refers to as "a self-reflective, experiential domain in which the work of philosophy is at once perfected" common to European Romanticism (2-3). Ultimately, Herschel's work at the Cape was considered so important that on his return 400 guests were assembled for a dinner in his honor with representation from the Crown, the clergy, Parliament and the elite of the scientific community: "The *Athenaeum* [even] gave the event a five page report" (Schweber 24). No matter how famous he became, however, Herschel's scientific work never prohibited his social and artistic activities.

After Herschel's poems for Baillie, he went on to write "Man the Interpreter of Nature," "Mira," "On Burning a Parcel of Old MSS.," "A Dream Which Was Not All a Dream" and others later included in his *Essays from the Edinburgh and Quarterly*

Reviews (1857).⁹ “Mira” (Latin for wonderful or astonishing) is intriguing for of its tribute to the giant red star of the same name in the constellation Cetus (named for the sea monster). A brilliant pulsating star that varies in magnitude, Mira is at its brightest point 1,500 times brighter than the Sun but in its eleven-month revolution diminishes almost to invisibility. In 1833, John Herschel wrote that the study of variable stars “holds out a sure promise of rich discovery, and is one in which astronomers in established observatories are almost of necessity precluded from taking a part by the nature of the observations required” (qtd. in Percy 3). This pulsating star was even more significant for John because his father William had catalogued the comparative brightness of such stars to facilitate the research of others; the catalogues provided essential “landmarks of the universe,” as Herschel called them, every registered star becoming to “the astronomer, the geographer, the navigator, the surveyor,—a point of departure which can never deceive or fail him” (Herschel, *Essays* 469).

Alluding to the star as a beautiful woman in the first stanza of “Mira,” the poet describes her as “self-possessed” and “graceful” with “bright, transparent thought.” Echoing Keats’ “Ode on a Grecian Urn,” Herschel’s last and more abstract line elevates Mira’s beauty to truth: her harmony exudes “that seal of truth which owns nor guile, nor fear.” The poem’s second and final stanza also addresses Mira’s beauty, but as secondary to her more meaningful qualities:

Hers the thrice royal robe of ermined proof
 Whence stain glides smirchless, shame
 ashamed flies.
 Hers the clear eye which fixed on Heaven aloof,
 Glows with deep wealth from inly treasured
 stores,
 Greatness that bows, and Lowliness that
 soars,
 Faith that enquires, and Love that purifies.
 (Herschel, *Essays* 739)

Ironically, the reference to “thrice” might also be the misinterpreted “trinity” to which Baillie referred in her 1847 letter to Herschel. Proof of Mira’s importance had also been at least three times chronicled—first by David Fabricius in 1596, by Johannes Holwarda in 1638, and by Johannes Hevelius in 1662 (who named it Mira)—thus another possible reference to a thrice royal robe of “ermined proof” (adorned in white) to establish Mira’s significance. Since ermines, generally brown in the summer, turn white in winter (the fur associated with royal robes), this color-changing process parallels Mira’s change in color and brightness during its pulsation cycle.

However, as astronomer Beverly Smith suggests, Herschel must certainly have been thinking about Mira and her placement in the constellation Cetus, with all of its mythological connotations.¹⁰ According to the Greeks, Cepheus chained his daughter Andromeda to a rock so that the monster Cetus could destroy her. King Cepheus, queen Cassiopeia and their daughter Andromeda, all constellations, are three “royal” personages associated with the myth and maybe the object of Herschel’s “thrice royal” allusion. This metaphor could even be extended to Andromeda’s rescue by Perseus, flying on Pegasus and carrying the head of Medusa, as “shame ashamed flies.” While this is a speculative reading, Herschel would have been aware of the mythological stories behind all of the constellations.

In 1777, William Herschel had also begun observations of the well-known but neglected star. And son John Herschel’s use of descriptors such as “glows,” “inly treasured stores,” “Greatness that bows, and Lowliness that soars” all have variable, astronomical connotations; for Mira is an astonishing and indefinable star propelled by its own “stores,” subordinate to none. Had he been able to see Mira’s comet’s tail as NASA discovered it in 2007 (http://science.nasa.gov/science-news/science-at-nasa/2007/15aug_mira/), Herschel would have been even more inspired by her unique beauty.

Sir John Herschel continued work on poetry and translations throughout his life, notably, Homer’s *Iliad* in hexameter. “In contrast to Alexander Pope’s looser translation in the eighteenth century,” explains Snyder, “Herschel more scientifically proposed to stay true to the literal meaning of the original, going so far as to print words that were not in the Greek text in a different typeface.” Herschel’s friend and colleague, William Whewell, was excited about the translation, for he had experimented in translation himself, and even helped Herschel find a publisher (Macmillan’s). Herschel only regretted that Whewell was not alive to see the final publication and in his preface lamented that Whewell’s death had “robbed the Science and Literature of this country of so bright an ornament.” However, Lord Tennyson was not so enthusiastic about Herschel’s translations, ridiculing them and claiming in his *Enoch Arden, and Other Poems* that “scientists should leave poetry to the poets.” Snyder believes it is one of the “final bricks in the wall that came to separate art and science” (351).

Soon after the scientific collaborations of John Herschel and his colleagues, scientist James Clerk Maxwell “bemoaned the fact that science was becoming overly specialized. No longer could a mem-

ber of the Geology Section in the British Association be expected to understand, and contribute to, discussions about current research in physics or chemistry" (Snyder 366). There was no longer a place for a "trilingual-mathematician-chemist-physicist-astronomer-photographer-musician translator," and I add poet, "such as Herschel" (366). The future meeting of minds between poet and astronomer would become rare indeed. Herschel spent his final years trying to make science more accessible to people "without specialized academic knowledge," particularly, through his encyclopedia articles, his *Outlines* and in his *Preliminary Discourse* (Buttmann 187).

NOTES

¹A few American scientists were still able to fund their own research, for example, Bostonian Percival Lowell.

²Herschel probably refers to Shakespeare's *As You Like It* in which the Duke "Finds tongues in trees, books in the running brooks, / Sermons in stones, and good in everything" (2.1.16-17).

³The Royal Society's Herschel letters are located in HS3.17-26.

⁴Some of Herschel's translations appeared in the magazine *Good Words*, and a few poems appear in his 1857 *Essays*.

⁵Snyder recounts how these four scientists' home lives were also intertwined, and the "friends goaded each other into making their discoveries, and cooperated in their efforts to transform the scientific world" (6).

⁶Anne Elliott of Honiton, Devonshire, was Baillie's close friend; Baillie often stayed at Elliott's home.

⁷All other quotes from the Herschel poems are from Baillie's edition unless otherwise noted.

⁸Baillie's *The Martyr*, about the execution of an officer in Nero's guard who becomes a Christian, had been published in 1826.

⁹A few other poems, including "Tick! Tick! Tick" (1865), in imitation of Wordsworth, are housed in the Cambridge University Library collections, Add. MS 7617B.

¹⁰Dr. Beverly J. Smith is professor of astronomy in the Department of Physics and Astronomy at East Ten-

nessee State University. I owe her for insight on this poem.

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