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SCIENCE, POETRY, AND DEFINING LIFE IN THE ROMANTIC ERA:

“LIFE! WHAT IS LIFE?”

By

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What defines humanity? Is it the soul? The body? In the early nineteenth century, these questions were not purely philosophical. Science, religion, politics, and literature were changing rapidly, and the question of “What is Life?” was central to the public and private pursuit of knowledge. One way to track the evolution of the question through the Romantic period is to look at the work of Dr. John Hunter, the originator of ‘vitalism’, which was the subject in the infamous the Lawrence-Abernethy debates. The question of life, and the nature of life, permeated the literary, scientific, and cultural spheres, influencing Romanticism at its core. Sir Humphry Davy, respected chemist and friend of the Wordsworth circle, contributed to the debate about life in his own research. Wordsworth and Coleridge weighed in through their poetry and prose. And not only Dr. John Polidori, but also Lord Byron and the Shelley Circle, had their thinking and writing shaped by this same anxiety surrounding how humanity should be defined.
For AJ
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What defines humanity? Is it the soul? The body? In the early nineteenth century, these questions were not purely philosophical. Science, religion, politics, and literature were changing rapidly, and the question of “What is Life?” was central to the public and private pursuit of knowledge. One way to track the evolution of the question through the Romantic period is to look at the work of Dr. John Hunter, the originator of ‘vitalism’, which was the subject in the famous Lawrence-Abernethy debates. The question of life, and the nature of life, permeated the literary, scientific, and cultural spheres, influencing Romanticism at its core. Sir Humphry Davy, respected chemist and friend of the Wordsworth circle, contributed to the debate about life in his own research. Wordsworth and Coleridge weighed in through their poetry and prose. And not only Dr. John Polidori, but also Lord Byron and the Shelley Circle, had their thinking and writing shaped by this same anxiety surrounding how humanity should be defined.

The time period I am examining represents a unique, privileged moment in Britain’s history. The transition between the Enlightenment and the controversy of evolution in the mid-nineteenth century was a tumultuous time in scientific and literary thought. There was contention between the national British way of thought - generally attempting to uphold the ideals of a Christian nation - and the German romanticism and move toward a more secular worldview existing on the continent. English scientists, fully aware of this shift in attitudes, adopted a more diagnosis based approach to science, turning this debate of what life meant into a description of symptoms. Yet, even the most advanced thinkers of science and literature in Britain held to vitalism, to the notion of divine influence upon life as they recognized it. The time period I look at does neither fully encapsulates the debate on what life was, nor does it contain every possible take on
the meaning of life in this moment in time. Upon close examination, however, we can see clearly that both science and literature played a significant role in the advancement of modern thought and philosophy during the early nineteenth century.

My goal here is to reveal and highlight this thread of Romanticism on a larger scale. While critical scholarship concerning the indelibly fused literary and scientific worlds at this time has been becoming more popular in the last two decades, this thesis seeks to examine links and networks from a deliberately interconnected point of view. I will look at three men of science, whose lives span from 1728 to 1821, almost a century of change and discovery in Great Britain and the world. Hunter, Davy, and Polidori were intimately involved with the Wordsworth and Shelley circles and participated actively in the controversial and ongoing debate on vitality. This complicated network of genius and influence, their impact on politics and society, reveals much about the dynamic conceptualization of life. Central to my focus here is these writers’ complex idea of the thread of life - of what “life” meant to these men, to the public, to the audiences for their work: how life was conceptualized and argued about, how it was shown in evidence through both experimentation and poetry, and how both reveal the moving influence of the principles of life and vitality.

Part 1: Historical Context: *Lyrical Ballads* and Romantic Science

Before we approach the ultimate question of being, we must look at the nature of the Romantic period in England at its time. In defining this era, I turn to William Wordsworth’s famous “Preface” to *Lyrical Ballads*. In the original 1800 “Preface” to the second edition, and in the following 1802 edition where he expanded on his views, Wordsworth labored to define what a Poet’s purpose was during this period of volatility
in the early nineteenth century. He spent time defending the poetry in the volume and also explaining the significance and depth of its apparent simplicity. The poems contained within *Lyrical Ballads* had several goals, but Wordsworth was clear about his primary goal: “From such verses the Poems in these volumes will be found distinguished at least by one mark of difference, that each of them has a worthy purpose” (Wordsworth 175). Each poem has a reason, a necessitating spark, a purpose to the reader and the common public. The poems contained within this volume were not mere decoration in other words; they were all unique and purposeful, just like the individual. This distinction proves significant when brought into the larger context of vitalism.

The “Preface” was a revolutionary manifesto of how poetry should function, written with the goal of framing the work of Wordsworth and Samuel Taylor Coleridge for the second edition of the collection. In defending his work, Wordsworth argued that poetry should be accessible to the common man and should deal with materials from common life. Nature was to be of primary focus—the landscape, flora, and fauna were all subjects of thought in poetry (Day 2). Despite the focus on nature in general, however, the Romantic poets were not simply nature poets. It is true that many Romantic poems dealt with an aspect of nature, but they were not primarily about nature itself. Nature was the stimulus for the poet’s mind, which was to engage in the human activity of thinking (2).

The poet’s focus was not only nature, in the way nature is mountains and trees, but always natural in the sense of humanity, of free thought and expression of true emotion. Wordsworth explains in the “Preface,” “I have said that Poetry is the spontaneous overflow of powerful feelings: it takes its origin from emotion recollected in
tranquility: the emotion is contemplated till by a species of reaction the tranquility gradually disappears, and an emotion, similar to that which was before the subject of contemplation, is gradually produced, and does itself actually exist in the mind” (183). Practicing interpretation of and reflection in the natural world defined life to Wordsworth. This was life inside of a poem at its most basic level. And what of the poet’s mind? In the 1802 edition, Wordsworth said:

What is a Poet? To whom does he address himself? And what language is to be expected from him? He is a man speaking to men: a man, it is true, endued with more lively sensibility, more enthusiasm and tenderness, who has a greater knowledge of human nature, and a more comprehensive soul, than are supposed to be common among mankind; a man pleased with his own passions and volitions, and who rejoices more than other men in the spirit of life that is in him; delighting to contemplate similar volitions and passions as manifested in the goings-on of the Universe, and habitually impelled to create them where he does not find them. (Wordsworth 420)

A comprehensive soul was vital to the creation of poetry. A soul contains passion, emotion, individuality, and morality. The concept of emotion and truth existing within the mind was vital to the poet’s interpretation of nature into poetry. Possessing a soul in this regard was what it meant to be a man talking to other men, to have the ability to rejoice in the “spirit of life that is in him.” This possession of a soul is super-physical, in that one cannot dissect the body of a poet and study their soul, their spirit for life. At this point of contention about life, the metaphysical was no longer the main consideration in the understanding of the soul. It is this super-physical concept of some essence beyond
the simply organic that reaches into the core of what defined life to the vitalist Romantics – it is an essential, vital spark that was more than just a collection of materials, as I will discuss later.

The 1800 “Preface” was more than a defense and definition of the poet and the verses in *Lyrical Ballads*. It was clearly concerned with societal events and with the changing climate of how humanity was functioning in England at the turn of the century. The rough and quick transition from an agricultural to an industrial economy shifted the focus from nature to the mechanical and urban. Wordsworth emphasized the need for this type of poetry, a poetry sprung forth from the soul, in this era by saying:

> For a multitude of causes unknown to former times are now acting with a combined force to blunt the discriminating powers of the mind, and unfitting it for all voluntary exertion to reduce it to a state of almost savage torpor. The most effect of these causes are the great national events which are daily taking place, and the increasing accumulation of men in cities, where the uniformity of their occupations produces a craving for extraordinary incident which the rapid communication of intelligence hourly gratifies. (Wordsworth 177)

Industrialization, urbanization, assimilation - all were growing, ominous realities of early nineteenth-century Britain, and all posed a potential attack on the individual. Wordsworth, among others, expressed anxiety over this change, that men were becoming obsessed and brainwashed by the mechanical and the manufactured: “I wish to keep my Reader in the company of flesh and blood, persuaded that by so doing I shall interest him” (177). The fear of losing humanity in the depersonalization of industrialization and modern technology was real, and keeping the public, his audience, rooted in the realm of
humanity and nature was of vital importance to Wordsworth, and to other Romantic minds at work.

But where did this Romantic anxiety to define and protect humanity come from? The fulcrum of “the Romantic movement” lies in the end of the eighteenth century and the beginning of the nineteenth. With its focus on nature and the thoughts of common man transcribed coherently and simply, Romanticism was at odds with the Neoclassical and the Enlightenment mindset. Sharon Ruston writes that, “Before the nineteenth century, life had been considered the body’s natural condition, and death the mysterious and unaccountable Other” (Shelley 4). But now, life itself was beginning to be viewed differently. This was a period of social transition, industrial migration, and a redefining of the natural world. In some sense, the beauty and sanctity of nature, which had been embraced during the Enlightenment, diminished as natural resources and became mere commodities. Romanticism lived and flourished in company with the ideals of the French Revolution, representing the democratic, rebellious impulse inspired by the revolution itself (Day 3). But this revolution of culture and ideas came at a potential cost, that of the loss of what humanity and interest lay in interpreting the natural world.

The resultant pushback against mechanistic nature is an essential thread to the scientific and intellectual thought during this time. Mechanical, industrial, and urban forces were at odds with the Romantic movement as a whole. They were dehumanizing humans, sucking out the individual in service of a preference for assimilation. This fear, of industrialization turning “human creation into mechanical reproduction” (Hogle 16) is precisely why Wordsworth was adamant that the poems within Lyrical Ballads each served an individual purpose. The rote mechanics of the new age of working in Great
Britain threatened the soul of the poet, the reverence of nature, and the individual scientist seeking out knowledge. By the 1810s, the Age of Reason had come to an end, and Romantics had begun exploring the complexities of human nature past the religious, and “alongside the metaphysical problems of existence, death, and eternity” (Stiles, “Somnambulism” 792). This inquiry into the deeper and more complex state and truth of humanity drove critical thought in this era for decades.

This ‘problem of humanity’ was not confined to the philosophizing simply of poets. In truth, it lay beyond the boundaries of poetry, philosophy, and science altogether. The question of what life was resonated beyond literature, beyond the “Preface,” and into Romantic thought and inquiry as a whole. The other, parallel track of intellectual inquiry into this question was that of science. Modern and recent connotations of ‘science’ and ‘literature’ tend to imply a clear split between the two. C.P. Snow’s 1959 famous Reed Lecture on “The Two Cultures,” for example, highlights this false but rhetorically effective divide between the STEM fields and the humanities. However, this divide did not exist in the early nineteenth century. The point of Snow’s concern, the root of the problem, as he sees it, lies in the lack of communication between the two distinct cultures. This easy communication, this lack of difference and disdain that existed in the early nineteenth century, helped to propel the intellectual movements of the Romantic era to the great heights of discovery and to the increasingly widespread knowledge and understanding of the natural world that was happening. It is this connection which allowed medical men and poets to share in theory and ideas, to bond in friendship, which led to some of the best and most influential work in the nineteenth century.

ROMANTIC SCIENCE
The modern understanding of the word “science” has a history of only a few hundred years. The practice stemmed from a second revolution of science at the turn of the nineteenth century, during which period thinkers popularized the practice of the scientific method, developed centuries earlier by Francis Bacon (Cunningham and Jardine 1). Before the 1790s, “science” as both a term and a practice was limited to religion and scripture, and was often understood to be concerned with proving the scriptural account of the world. But by 1800 it was providing revealing, empirical proof that what faith taught may have been less fact than metaphor. The shift in science from faith to experimentation and process fostered a determination to understand humanity at the most basic and fundamental level: life. Sharon Ruston explains part of this shift:

The historical moment that witnessed the beginnings of Romanticism also marked a new way to define and understand the idea of life. By the year 1800 a new concept of life had emerged, likening the life of animals to human and even plant life. Life was for the first time considered a universal state and the political ramifications of this idea are clearly seen in the literature of the period. Previous to this, life had been considered the body’s natural condition, and death the mysterious and unaccountable Other. Ideas changed as Romantic scientists recognized that the state all matter tended towards was that of death and dissolution… and, instead, life became the subject of scientific speculation. Unfortunately, life was a tricky subject to study; it was not constant, could not be artificially created or reproduced and was so precarious as to be endangered by attempts to study it. (Ruston “P.B. Shelley” 2)
The new attitude or awareness toward life prompted action in intellectual communities. Scientists began experiments and developed theories in earnest, while literary minds like Coleridge and Shelley wrote essays on the subject of life. The popularity of the subject extended also to the general public, with members of the middle and upper classes attending lectures and debates, and reading new scholarship as it developed. On a grand scale, the philosophy of life was being explored by literary and scientific minds equally seriously.

Wordsworth, in expanding the “Preface” for the third edition in 1802, recognized the connection between the poet and the “Man of Science.” The pursuit of knowledge and understanding of the universe is something that poets and scientists clearly shared. Both converse with the elements of nature that are in their study, both labor over their craft, and both derive pleasure from its practice (Wordsworth 423). This pleasure that derives from knowledge is essential in understanding the human soul – the poet and the scientist exist on the same level of this knowledge-seeking. Only knowledge, and the pursuit of it, are sources of the purest pleasure.

We have no knowledge, that is, no general principles drawn from the contemplation of particular facts, but what has been built up by pleasure, and exists in us by pleasure alone. The Man of Science, the Chemist and Mathematician, whatever difficulties and disgusts they may have had to struggle with, know and feel this. However painful may be the objects with which the Anatomist’s knowledge is connected, he feels that his knowledge is pleasure; and where he has no pleasure he has no knowledge. (Wordsworth 422)
Should ‘life’ be defined as finding this pleasure – seeking it out? Is the search, and the impulse that drives it, what makes a soul? Is this the definition that the Romantics believe in, the vital spark of a person? It is increasingly clear that both avenues into this question of life were understood to be “science” in the beginning of the nineteenth century. It is in the mixture and joining of the literary and scientific circles where we find this search for the truth of humanity.

The concept of Romanticism, as the field has shown in recent decades, cannot rest solely upon the shoulders of the Wordsworth and Shelley circles. Women writers, men outside of the circles, and scientific writers are all a part of the larger picture of what Romanticism encompassed. Ruston contends as much, claiming that “what became known as ‘Romanticism’ was created by scientific as well as literary and philosophical ideas” (Ruston, Creating 3). Romantic writing was a product of its historical circumstance, marked by a constellation of causes and historical phenomena, not a single movement defined only by Wordsworth in 1798. Even the “Preface” to the Lyrical Ballads does not mark the beginning of an era, does not function as an all-encompassing manifesto of what Romantic writing should be. It is a product of its time as well, a declaration situated on a moving continuum.

Circa 1800, science was not opposed to arts. In schools, chemistry, history, and theology would have been taught under the sciences; engineering would have been labeled a practical art. The real division in the sciences at this time was one of practical practice. David Knight provides historical context for this complex relationship of science to the public: “Some aspects of natural science, such as pharmacy, were seen as professional: to discuss them in public would have been impolite… but discoveries in the
sciences were generally very appropriate for civilized conversation even when it included women” (14). Pharmacy and professional work were impolite to speak about in the public discourse, but theory and new discovery were popular subjects in the public sphere.

In *Creating Romanticism: Case Studies in the Literature, Science and Medicine of the 1790s* (2013), Ruston contends that science and medicine should absolutely be recognized as “playing a part in the creation of what we now, anachronistically, call ‘Romanticism’” (2). Scientific and medical writing, like any other form of writing, is a product of the same shared historical moment. The turn of the nineteenth century witnessed a second scientific revolution, marking a shift from what had been called “natural philosophy” to what we now understand and label as “science”; or, from faith to experimentation. From the 1790s on, the “body had come to be seen among scientists as a mass of diseases, heading steadily towards death, while the ‘unnatural connexion’ [sic] which held the body together in life was acknowledged to be the greatest mystery. The study of vitality had become, by the time of Shelley’s letter [1810s] one of the most intensely argued and notorious subjects in science” (Ruston “P.B. Shelley” 1). This transition during this time in fact influenced how society functioned—how it thought about the big questions and how it went about answering them. This period saw the “beginning of a new era of scientific specialization with the creation of many societies crucial to the development of disciplines that we still have today; and, connected to this, that it witnessed the beginnings of the professionalization of science, indicated by a move from provincial to institutionalized science” (Ruston, *Creating* 3). The move from the speculative natural philosophy favored by the Enlightenment did not mark simply a rejection of faith, and often not that at all, but more an evolution of thought. Most early
nineteenth century scientists were devout Christians, but the tradition of natural philosophy was now seen as mechanical and base, where the new view of science was to seek truth and knowledge (Cunningham and Jardine 3).

The developing practices and methods in the scientific world transferred in part to the literary sphere. “The Lyrical Ballads has been viewed traditionally as a text hostile to science, and yet it is possible to see this text as scientific in its methods. Wordsworth states very clearly in the 1898 ‘Advertisement’ to the original edition: ‘The majority of the following poems are to be considered as experiments’” (Ruston, Creating 11). This experimental mindset of Wordsworth and others in the literary world, both in his circle and outside it, was becoming more and more linked with this revisionist new practice of science. Science wasn’t a rote idea, a static subject, at this point in history. It was new, exciting and different, and it quickly gained attention and popularity among the middle and upper-class intellectual circles, just as the best new literature circulated among them.

Ruston notes that this growing connection between science and literary work goes further than just cultural, zeitgeist-y knowledge. Many writers “deliberately and knowingly intervene in the debates that we would now consider to be scientific and medical, such as Wollstonecraft on whether animals have reason, William Godwin on animal magnetism, Edmund Burke discussing a regimen for health, or Coleridge on the nature of life” (Creating 3). Concern for and inquiry into the processes of life were increasingly regarded as “very appropriate for Romantics” (Knight 20). This connection of the literary mind and scientific theory was in fact a common thread in intellectual circles in the Romantic era. Poets and authors knew scientists and doctors, and men of science dabbled in literature in their spare time – often drawing artistic inspiration from
their own scientific work. There is nothing in this new universe that is purely scientific, nothing purely philosophical or poetic. It comes down to a uniquely human question of the representation and evidence of what makes humanity human at its core, its source.

In this new era of science, then, the early nineteenth century was imbued with the words of thinkers, printed and widely distributed among reading circles, newspapers, and colleges. Public lectures functioned as entertainment alongside operating theaters and public debates. Romantic scientists used the techniques of the stage to popularize their discoveries to the public – electrical phenomena, optical illusions, and more at the same time they entertained and educated that public. Medical dissections and demonstrations were held in operating theaters, accessible alike to students and the public (Stiles et al., “Somnambulism” 801). The content of entertainment at these public lectures and events included amputations, autopsies, gruesome demonstrations, and more, all inciting a public conception of human composition and monstrosity. Both poetry and science were published for the same middle-class audience to consume and enjoy (Ruston, Creating 10). Popular periodicals such as “Macmilan's Magazine, Household Words, the Fortnightly Review, Cornhill Magazine, and the Nineteenth Century, published both serious scientific articles and works of literature and criticism. Often these journals provided the original forum for the writings of scientific luminaries” (Sparks 125). The popular imagination was filled with, and fed by, associations with medicine and monstrosity because of such public displays of science and accounts in fiction.

Part 2: What is Life? John Hunter and the Vitalist Debates

We may begin to assess these connections by considering the cultural climate of the time. The middle and upper classes were growing with the industrialization of British
society, and were increasingly interested and invested in modern thought and debates. Post-Enlightenment views on life, on science, engendered contentious debates at this time. Literary circles were informed and connected to these debates and discoveries and pursuits, as is evident in their work. As I have begun to explain, the cultural attention of the early nineteenth century was shifting toward self-inquiry. Medicine and science had upended the life of the late Enlightenment and now seemingly everyone was wondering about what actually made humans alive – about what the difference truly is between an alive and a dead body, about what lies beneath the skin, invisible to our perception.

Intellectuals in the Romantic era, both poets and scientists, shared curiosity about the big questions about life, humanity, thought, and nature. Both used their talents to work at these questions, and many combined approaches across disciplines to explore the concept of life. These big questions, big subjects, provide at least a preliminary frame through which to view and place these Romantic thinkers in a larger context. One particularly defining debate of the early nineteenth century revolved around this idea of life itself. The famous Lawrence-Abernethy debates of the 1810s, a series of public lectures on the problem of defining life, introduced to the broad public the terminology by which to define life. Vitalism or materialism. The difference between the two views on what constituted life were significant. Vitalists believed in a spark of soul, a divine hand that was a part of each individual, deliberately instilling a sense of purpose and morality. Materialists believed that the body was simply a construct of constituent parts, and functioning only because its material systems operate together.
Complicating this subject is the idea of the monster. “Monstrosity,” as Denise Gigante argues, was considered a materialist construct of a “static, ill assemblage of parts” (435). To John Hunter, monstrosity was a self-propagating mistake of nature:

To illustrate, Hunter considers first monsters of the mineral category. In the case of a crystal, he argues, a defect occurring immediately before or after formation begins can cause the mineral to propagate itself incorrectly. Having set off on the wrong foot, that is, the mineral continues on the road of monstrous generation through a repetition of its aberrational self-production, "the first setting out being wrong, and [the formation] going on in the same [wrong line]." One can see how Hunter's principle of monstrosity is well served when mineral formation, whereby the crystal turns itself into a monster by producing more of itself, is applied to vegetable and animal life, whose self-production is more heterogeneous.

(436)

Hunter, born in 1728 in Scotland, is known today for his significant contributions in the fields of surgery, medicine, and medical theory. Explaining the foundational aspect of his views of life, Hunter contended that mineral life, propagating in monstrosity, transfers upward through the animal kingdom to the human race.

In a series of publications in the 1770s, Hunter worked to define the methodology behind modern physiology. He ground his techniques in the central assumption that life did not depend solely on the physical structure of an organism. In Hunter’s Essays and Observations on Natural History, he affirms that –

Whatever Life is, it most certainly does not depend upon structure or organization. In contradiction to organization being a cause, we find in general
that the least organized are the most tenacious of life. Thus we end that, in
general, the most imperfect animals are the most difficult to be killed, when the
actions of the parts are stopped upon which life is continued. But this is not
constantly so, therefore peculiarity of organization is not in the least necessary.

(114)

Hunter’s claim confirms his stance that the materialist argument, or the belief that life is
only an assemblage of parts and functions, does not represent the truth of life. Hunter
developed the idea that there was a self-propagating vital power, “which could assert
itself beyond the physical border of the organism, effectively enabled the transformation
of an Enlightenment concept of monstrosity as an ill assemblage of parts into a vitalist
concept of monstrosity as an extension of the living principle” which created a
“Romantic view of monstrosity as a troubling overflow of the living principle” (Gigante
434). In an attempt to answer what this intangible power could be, Hunter draws a
comparison between Life and Fire. “I do not mean real and actual fire; but something that
is similar, and is effected and brought about much in the same manner.” This balance of
Animal Fire and the body produces and sustains life in what Hunter calls a “vital
harmony” (Hunter 114). The vitality of a living being, in other words, was dependent on
more than just the sum of its parts.

To Hunter, monstrosity was predicated on a deviation from the uniform.

“Monsters are not peculiar to animals: they are less so in them, perhaps, than in any
species of matter. The vegetable [kingdom] abounds with monsters; and perhaps the
uncommon formation of many crystals may be brought within the same species of
production, and accounted for upon the same principle, viz. some influence interfering
with the established law of regular formation” (Hunter 240). Hunter’s principle of monstrosity was “nothing other than the principle of life propagating itself to excess from within” (Gigante 434). Life growing, breeding, to *excess* was the cause of monstrosity. A materialist theory could not align with this self-propagation outside the normal boundaries of body parts and their function - it would take something extra in the body, or the lack of that something, to spark the growth of monsters. Hunter collected abnormal animals and human specimens, or monsters in the contemporary use of the word. This focus on abnormality was a common obsession of the time (Moore 153). Monstrosity and the nature of normal and abnormal “life,” we discover, was not limited to creating interesting characters in novels – for example, Mary Shelley’s creature and Polidori’s Vampyre. Rather, this debate, the struggle of self-understanding inherent in this question of life and humanity, drove critical thought for decades in Britain.

Hunter is at the center of the web of surgeons and poets associated with the Romantic-era debates on what constituted life. Hunter was a teacher and lecturer of medicine in London in the 1770s, and had several dedicated students, one being John Abernethy (Moore 173). In London in the 1810s, Abernethy was a famous surgeon operating from St. Bartholomew’s where he pioneered the teaching program. The other main player in the debates, William Lawrence, was apprenticed to Abernethy, and the two had maintained a good working relationship until the time of the debates. As Richard Holmes explores in *The Age of Wonder*, the clash of Lawrence and Abernethy and their relation to Hunter was only one aspect of this debate, since at the beginning of the century similar contestatory public and scientific discourse had already gained attention through public demonstrations of galvanism on dead animals and humans (317).
It was Hunter’s notion of a “living principle,” however, arguing against materialism, that lay at the center of Abernethy and Lawrence’s disagreements. In a series of open lectures at the Royal College of Surgeons between 1814 and 1819, Abernethy and Lawrence debated the principles of life before a public audience. Abernethy, a dedicated former student of Hunter, “had found among his bloodstained and chaotic manuscripts various ill-defined theories of a Life Force or Life Principle, which suddenly seemed of great contemporary interest” (Holmes 309). Abernethy used these works to inform his own research on the question of life. It is worth noting the continuing web of ties between the players in this time period. For example, Abernethy treated Coleridge for his opium addiction while he was in London (306). And, while Coleridge consulted with Abernethy in 1812, Lawrence became medical advisor for a while to a young Percy Shelley, who was “suffering from a cocktail of nervous diseases including abdominal spasms, nephritic pains, suspected tuberculosis, and a writing-block” (311). In the midst of the increasingly hostile debates that ensued, men of science and poets nevertheless interacted, collaborated, and shared ideas - the results of which are clearly evident in their respective works.

Abernethy proposed the concept of an “invisible vital fluid” (Gigante 434) and said it was the source, or the principle, of life. In this pursuit, Abernethy claimed that this was scientific evidence of the existence of a soul (Holmes 309). In his first lecture in 1814, titled “Enquiry into the Probability and Rationality of Mr. Hunter’s Theory of Life,” Abernethy argued that “a subtile [sic] substance of a quickly and powerfully mobile nature, seems to pervade every thing, and appears to be the life of the world; and therefore it is probable that a similar substance pervades organized bodies, and produces
similar effects in them” (qtd. in Gigante 435). Abernethy called his lectures “Hunterian Orations.” Before this, Hunter’s main legacy was his surgical innovations and his knowledge of comparative anatomy (Holmes 308). In his lectures, Abernethy “attempted to prove that the celebrated surgeon John Hunter, to whom he had been apprenticed, had formulated a coherent theory of vitality: that life did not depend upon the organization of the body (its organs and material parts in their particular arrangement) but was a substance ‘superadded’ to the body” (Ruston “Natural” 71). Abernethy also added his own research in support of Hunter’s theory, first making a connection between life and electricity, and then identifying life as electricity (Ruston “P.B. Shelley” 5). Extending the connections he perceived between vitality and electricity, Abernethy cited Humphry Davy’s research on animal magnetism: “The experiments of Sir Humphry Davy seem to me to form an important link in the connexion [sic] of our knowledge of dead and living matter” (qtd. in Holmes 310).

In March of 1816, speaking on the other side of the debate, Lawrence argued a differing position. He too believed that there was an “essential difference” between living and dead matter, but argued that “life was the result of organization” (Ruston “Natural” 71). Lawrence’s lecture, entitled “An Introduction to Comparative Anatomy and Physiology,” denied the presence of this “supervenient vital fluid and insisting that life was simply a matter of organization” (Gigante 434). Lawrence believed that the body was an assemblage of functions and parts, mechanics that make up organisms. Lawrence’s radical materialist theory of life was not accepted by the general public. Lawrence was “clearly perceived as a threat to the stability of the country and he was linked throughout with others who questioned cultural orthodoxies. Science was used by vitalists to sustain
a particular model of power and by materialists to question and disrupt that orthodoxy” (Ruston “P.B. Shelley” 2). Materialist defenders and scientists were seen as “destroying all the poetry of the living organism by reducing it to the sum of its functions” (Gigante 433). If Lawrence and the other materialists were to be believed, “then ‘crimes are considered merely disorders of the bodily structure’ and there is no system to reward virtue or punish wrongdoing” (Ruston “Natural” 73). That meant there was no religion and no divine morality driving the actions of humanity, a position too subversive to conventional religious thinking to be tolerated.

This liberation from morality, as some labeled materialist views, was a blow to contemporary and conservative attitudes toward life, a blow that was for many as scandalous as the French Revolution had been to conservative political thought. Lawrence was not hostile to the idea of a soul, but he did place the concept outside of what he considered to be worthy of legitimate scientific experiment:

Appealing for his theory of life to be considered only on scientific merit, Lawrence emphasized that the existence of the soul was an independent issue which he did not intend to discuss: ‘the theological doctrine of the soul, and its separate existence, has nothing to do with this physiological question’. This debate was in many ways a test case for the emerging notion of scientific objectivity. Of course, Lawrence was not permitted this freedom and critics of his lectures argued that his real aim was to prove that the soul did not exist. Lawrence’s open declaration of the influence of French writers on his work was interpreted by Abernethy’s supporters as both a political and physiological betrayal. He was denounced as a materialist and an atheist. Not only Abernethy,
but a number of outraged medical and non-medical critics attacked Lawrence’s lectures. He became a notorious figure and the debate was covered by all the journals of the day.

(Ruston “P.B. Shelley” 7)

Attacks on Lawrence’s overt materialism grouped him together with the revolutionary French, the implacable enemy of the English nation. Ruston points out that, “In cahoots with the French, they are presented as attempting to undermine the moral fibre of the Englishman to the same ends as French revolutionaries” (“Natural” 74). In Lawrence’s public statements in the vitality debates, he “stated bluntly that there was absolutely no such thing as a mysterious Life Principle, and that the human body is merely a complex physical organization.” (Holmes 312). Lawrence attacked religion, and as the controversial debates became more widely covered and gained broad public interest, Lawrence was accused of “personal betrayal, ingratitude, and atheism” (313). For Abernethy, the principle of life had a “superior power over the body, and is typified by its ability to control and regulate the body” (Ruston “Natural” 75) and he argued that this was a check, needed to enforce and regulate morality. Without this built-in, vital morality, humanity had no incentive to remain moral, and man therefore lay a step from monstrosity at all times.

The crux of this debate, as Ruston points out, is that “a theory of life could be (and was) held to prove or disprove the existence of a soul, or immaterial mind” (Ruston “P.B. Shelley” 2). These scientific and philosophical debates were used to persuade and support political and theological public opinion. Abernethy’s conservative vitalism represented the prevailing conservative voice of the Romantic period, and the dissenting
Lawrence struggled against an overwhelming tide of vitalist belief (2). Controversial and popular, the vitalist debates made waves in the public and private spheres. The mutual and reciprocal influence between science and literature pervaded the decades surrounding these debates, as evidenced in the multiple works on life published at this time.

**Part 3: Life in Literature: Coleridge, Davy, Shelley, and Polidori**

In his lectures on aesthetics in 1814, Coleridge writes “The BEAUTIFUL… is that in which the many, still see as many, becomes one” (qtd. in Gigante 434). Two years later, in his “Theory of Life,” Coleridge defines life similarly as “the power which discloses itself from within as a principle of unity in the many,” or “the principle of unity in multeity” (qtd. 434). Just as for him aesthetic beauty had been a static harmony of parts, he viewed life as a principle of harmony among parts, and “monstrosity emerges as a principle opposed to their harmonious convergence in form” (434). Coleridge’s views align precisely with those of Hunter, functionally the same as Hunter’s growth of monstrosity in crystals.

In 1799, Coleridge met Humphry Davy in Bristol, where Davy was studying electrochemistry, and they became lifelong friends. Davy is widely regarded as the foremost British chemist of the nineteenth century. Born December 17th, 1778, Davy grew up at Penzance near the sea in west Cornwall, a place that Maurice Hindle describes as influential to his life: “Where the land’s rugged beauties and magnificent sunsets provided ample material for his effusive nature poetry, most of it written in blank verse that he mastered early in life” (16). His early life has been compared to that of Wordsworth, “both of them experiencing the stimulus of a rural existence far away from the bustle of cities, and both being imaginative and alert boys who frequently wandered
the landscape alone, absorbing and reflecting on its sights and sounds” (17). His connection to traditionally defined Romanticism is not merely a tenuous one. Christopher Lawrence points out that:

If Romanticism is a continuous thread in Davy’s life, it is a Romanticism which has to be understood in two rather different sense. In the first sense, Romanticism comprises a cluster of ideas, assumptions, and practices which Davy drew on, often quite unreflectingly, throughout his life. Thus if Romanticism encompasses, for instance, a belief in the unity of nature, an active universe and the sublimity of light, Davy was indeed a Romantic from birth to death. In the second sense, however, Romanticism comprises a number of ideas and practices which Davy employed self-consciously and self-creatively. In this sense Davy’s career and his presentation of himself were shaped by his use of a Romantic idea of genius. The two senses are of course related. Davy’s idea of genius was built from an incorporated his Romantic assumptions about nature. The bridge between these two Romanticisms is Davy’s concept of power.

(C. Lawrence 213)

Ruston furthers this connection, not just between Davy and Romanticism but between Romanticism and science as a whole. During and beyond the 1790s in Britain, she writes, there was a “special relationship between poetry and chemistry” (Ruston, Creating 132), and this symbiosis during the Romantic period is due to “contemporaries’ claims for their respective power to transform” (133).

Davy is best remembered for his invention of the miner’s safety lamp. In his career as a chemist, or scientist, he “isolated more chemical elements than any other
individual has before or since, including chlorine, magnesium, and potassium” (Ruston, “Respiring” 366). Davy made his name in Bristol at the Pneumatic Institute at Clifton where he experimented with nitrous oxide gas (366). It was in 1799 that he first prepared samples of this laughing gas, which turned out to be very popular among those in Bristol: “This is hardly surprising. Davy and the others, although ostensibly engaged in a scientific inquiry into the physiological effects of a gas, employed it as a poetic device for exploring the senses. Nor indeed were a science of life and poetry separate enterprises” (C. Lawrence 218).

Less well known are his literary works. Davy wrote poetry throughout his life, on the subjects of nature, the imagination, and the sublime, which Davy coded as “power” (Ruston, “Respiring” 366). Hindle accounts for the contemporary admiration of Davy’s more creative work: “Both Southey and Coleridge thought highly of his verse, though the latter’s later claim that if Davy had not been the greatest chemist he would have been the greatest poet of his age, even on the most generous reading of his work, is more suggestive of his regard for the man, than for the work” (16). Davy fancied himself a poet; Coleridge called him “the Man who born first a poet first converted Poetry into Science” (qtd. in Kipperman 409). This inherent connection between poetry and chemistry for Davy played into how he approached his experiments, and into how he interpreted them, as is evident here in Davy’s poem about his experiments with nitrous oxide at the turn of the century:

Not in the ideal dreams of wild desire
Have I beheld a rapture wakening form
My bosom burns with no unhallowed fire
Yet is my cheek with rosy blushes warm.
Yet are my eyes with sparkling lustre filled
Yet is my mouth replete with murmuring sound
Yet are my limbs with inward transports
thrill’d And clad with new born mightiness around.

(qtd. in Hindle 18).

The empirical intellectualism of this pursuit of science is not unconnected to the vitalist theme of searching. Davy saw himself as a son of genius, just like the great scientists before him. Genius, by the 1790s, was no longer considered as merely a “neo-classical personification with which one might politely identify, nor even as the ‘extraordinary capacity for imaginative creation’” (Hindle 17), but instead as a power that possessed him, leading Davy to science and discovery. This interpretation is inherently vitalist, as it implies a fate-driven urge within the body, the soul, to do this work. In his 1795 poem “The Sons of Genius,” written when he was only seventeen, Davy exclaims a delight in the sciences:

To scan the laws of Nature, to explore
The Tranquil reign of mild philosophy;
Or on Newtonian wings sublime to soar
Thro’ the bright regions of the starry sky.

(qtd. Hindle 16)

Whether or not Davy’s poetical prowess is comparable to those of the Wordsworth or Shelley circles, Davy’s poems are rife with imagery and information that can only be communicated from scientific experimentation and through a mind of genius.
Coleridge wrote of Davy, “Every subject in Davy’s mind… has the principle of vitality. Living thoughts spring up like turf under his feet” (qtd. Lawrence 217). Wordsworth “undoubtedly” first learned of Davy from Coleridge, and later the two became long-term friends as well (218). Davy, Coleridge, and Wordsworth all knew each other at this time and were mutually influential on each other’s work (217). Like Coleridge and others during this time, Davy reflected on the true nature of life and came to a vitalist conclusion. Davy and Coleridge were certain that the organization of matter could not solely give rise to life, and instead that the “organized living body was the instrument of some more fundamental, perhaps undiscoverable, hidden power” (223). “Argued in this way Davy’s chemical and physiological ideas appear to follow from a number of Romantic assumptions about nature. Such an argument in turn reinforces the practice of representing Romanticism principally as a cluster of ideas about nature, or God and the mind” (223).

The scientific drive of discovery behind Davy’s chemistry enthralled Coleridge and other literary intellectuals like him because of the possibility that lay behind his discovery. Wanting to participate in this debate on vitalism, Coleridge attempted to steer a path between the two extremes. He wanted to connect science with the sacred concept of life, and “argued that the soul existed, but had no analogy with ‘electricity’” (Holmes 321). Coleridge maintained that there was a principle of life, but that it had nothing to do with the physiology of the body (322). As Mark Kipperman writes, Davy’s chemistry had an “applicability to social institutions not merely as an analogy but as proof of unifying immanent lawfulness that could guide moral and even political understanding” (423), which was entirely a vitalist sentiment. Romanticism as an ideal sought out the very
things that Davy the scientist was working to prove, and valued this lawfulness in terms of political, moral, and speculative ends.

Vitality became a site of contention during the revolutionary upheavals of the late eighteenth century and provided a metaphor that could be used to reflect on these political events. In the conservative backlash that followed in Britain during the early nineteenth century, metaphors of vitality were used to serve different ends, both to reinforce and to radically question a fear of political change.

(Ruston “P.B. Shelley” 1)

This Romantic idealism was not irrational hope; it was actually based on “realistic expectations of what contemporary empirical research was disclosing about the unity of forces and the nature of the elements—research that, Davy taught them, would be of immense practical and social utility” (Kipperman 416). Clearly, there was great potential in new scientific discoveries on this front. As Davy reasoned, it was entirely possible to explore “cause-effect patterns between human perceptions or ideas and the physical world, so that by discovering them we should be informed of the laws of our existence, and probably enabled in a great measure to destroy our pains and to increase our pleasures” (416). Davy and others invested great hope in this pursuit of the secret of life, to prove the concept of vitality and firmly reinforce the ideas of morality, lawfulness, and individual purpose.

Davy’s connection with the Wordsworth circle was strong. On more than one occasion, Wordsworth asked Davy’s opinion, and for the second edition of *Lyrical Ballads*, Davy was asked to edit the “Preface” and look over the contents of the collection by both Wordsworth and Coleridge (Treneer 62-63). Hindle argues that Davy
and Wordsworth’s friendship and working relationship provided ample opportunity for a mutual influence between them. That relationship is apparent in the third edition, from 1802, where Wordsworth expanded the preface by adding several paragraphs on the nature of science and literature:

> The Man of Science seeks truth as a remote and unknown benefactor; he cherishes and loves it in his solitude: the Poet, singing a song in which all human beings join with him, rejoices in the presence of truth as our visible friend and hourly companion….Poetry is the first and last of all knowledge--it is as immortal as the heart of man. If the labours of men of Science should ever create any material revolution, direct or indirect, in our condition, and in the impressions which we habitually receive, the Poet will sleep then no more than at present, but he will be ready to follow the steps of the man of Science, not only in those general indirect effects, but he will be at his side, carrying sensation into the midst of the objects of the Science itself. (Wordsworth 423)

While Wordsworth favored poetry’s accessibility by the common man, he also understood both the attraction and the passion of science. Both men are in the pursuit of the truth, and in that they stand together. Davy was obviously the impetus behind Wordsworth’s addition of this “Man of Science” section (Holmes 291).

Romantics were not “solitary, introverted geniuses” (Ruston, Creating 176) who wrote poetry in a field, alone. The active Romantics were all connected in interwoven communities, networks, and circles. The major critical movements in both science and literature in the nineteenth century were invested in self-understanding (Cunningham and Jardine 2). The Romantics wanted to understand themselves through nature, and
scientists wanted to understand themselves as nature. “The self-image of the new ‘men of science’ was to be largely constituted by Romantic themes – scientific discovery as the work of genius, the pursuit of knowledge as a disinterest and heroic quest, the scientist as actor in a dramatic history, the autonomy of a scientific elite” (8). For Wordsworth, it is this pursuit of knowledge in pleasure that tied the two factions together.

Davy’s work and lectures argued that the pursuit of his chemistry, and the values of science, were serving the public good. After meeting Davy several times and befriending him, Coleridge defended the “intellectual discipline of science as a force for clarity and good,” and contended that “Science, like poetry, was not merely ‘progressive’. It directed a particular kind of moral energy and imaginative longing into the future. It enshrined the implicit belief that mankind could achieve a better, happier world” (Holmes 268). However, where Coleridge and Wordsworth considered chemistry as a lower-order pursuit, undertaken to provide a superficial analysis of nature, Davy aligned chemistry with the Romantic pursuit of the sublime, which was “connected with the love of the beautiful and the sublime…eminently calculated to gratify and keep alive the more powerful passions and ambitions of the soul” (qtd. in Lawrence 220). His argument makes a case for the role of chemist in the progress of moral and social movements as well. The popular and controversial debates between Lawrence and Abernethy are proof of this concept. Abernethy even used Davy’s work with electricity to support his belief that electricity was life, and “Abernethy’s interpretation of these findings must have surprised Davy; he was being praised for successfully proving that electricity performed a vital operation in both dead and living matter” (Ruston “P.B. Shelley” 5). In fact, Davy believed that matter was not active, and that a divine hand had chosen to impose power
on matter, and it was this power, a vital power some argue, that gave life to the matter, and this belief lent support to the vitalist side in the debates (Knight 21). Davy partially explained here himself:

As a branch of sublime philosophy, chemistry is far from being perfect. It consists of a number of collections of facts, connected together by different relations; but as yet it is not furnished with a precise and beautiful theory. Though we can perceive, develope [sic], and even produce, by means of our instruments of experiment, an almost infinite variety of minute phenomena, yet we are incapable of determining the general laws by which they are governed; and, in attempting to define them, we are lost in obscure, though sublime imaginations concerning unknown agencies. That they may be discovered, however, there is every reason to believe. And who would not be ambitious of becoming acquainted with the most profound secrets of nature; of ascertaining her hidden operations; and of exhibiting to men that system of knowledge which related so intimately to their own physical and moral constitution? (Davy 142)

The hidden secrets of nature lay at the heart of the vitalist debates and the question of the soul. Davy affirms his dedication to seeking answers, and his hopes for those answers to be discoverable as long as men of science remained ambitious in their pursuit of the truth.

This is where Hindle connects Davy’s views on science to the excitement expressed in the Lyrical Ballads preface toward science (24). Since Wordsworth argues that the work of the Poet had the power to make the same, significant contribution to the moral and societal progress of humanity, Hindle argues that, “One can only imagine the excitement that Davy must have felt when he read the word ‘experiment’ on the second
line of the Preface to Lyrical Ballads in the period he was ‘correcting’ a text that would come to be viewed in modern times as ‘a kind of literary revolution, a moment of discontinuity in English literary culture’” (24). Davy’s influence goes far beyond his close friendships with Coleridge and Wordsworth, however, as his work was public, made popular by publications and his lectures on the subject.

THE SHELLEY CONNECTION

Percy Bysshe Shelley read Davy’s books on chemistry and had a passion for science throughout his life. Science and scientific imagery often appeared in his poetry and works. At Eton where he was sent from ages twelve to seventeen, as D.G. King-Hele recounts, Shelley found a friend and mentor in Dr. James Lind, who instilled within the young Shelley a passion for experiment and science (253). Shelley’s rooms at Oxford, for the short two-term stay before he was expelled in March of 1811, were filled with scientific equipment and experiments: “His rooms were littered with scientific instruments such as electrical machines and voltaic batteries, his hands and clothes were stained with acids, and his guests would sometimes find their teacups half full of concentrated acid” (King-Hele 254). This passion for science survived his expulsion, his marriage to Harriet Westbrook in 1811, his elopement with Mary Godwin in 1814, and years of dodging debts across the continent. As prevalent as was his interest in science was throughout his life, “Shelley was more passionately concerned about the wrongs of, the future of humankind and the imaginative power of poetry” (263). This humanistic conviction was much in line with the proclivities of Wordsworth and Coleridge, and with the tenets of vitalism in general.
In 1811 we see further connections between the men of science and the poets. Shelley was in London and in the company of several surgeons and medical men. He was in attendance at Abernethy’s famous lectures, and he befriended Lawrence as well. Lawrence became his doctor throughout Shelley’s stay in London and well past the final 1819 debate, and Shelley moved to Italy on medical advice of Lawrence (Ruston “P.B. Shelley” 9).

Life as an idea was used repeatedly in Romantic poetry and literature. It was questioned constantly, and the answers to those questions were never entirely or satisfactorily answered. Ruston summarizes Shelley’s poetical use of ‘life’ “in numerous senses and often with conflicting definitions, from the demonic triumph of ‘Life’ in the poem of that name, to the femme fatale called ‘Life’ in Una Favola, to the ‘veil which those who live / Call Life’ in the sonnet ‘Lift not the painted veil’. Almost the final line of Shelley’s final poem, ‘The Triumph of Life’, unfinished at his death, asks ‘What, then, is life?’” (Ruston “P.B. Shelley” 9). This insistent inquiry superseded all attempts at self-understanding. All roads led down this path, to the ultimate questions of life and death, of humanity’s purpose on Earth. Shelley’s essay titled “On Life” was similarly curious about the nature of life:

What is life? Thoughts and feelings arise, with or without our will, and we employ words to express them. We are born, and our birth is unremembered, and our infancy remembered but in fragments; we live on, and in living we lose the apprehension of life. How vain is it to think that words can penetrate the mystery of our being! Rightly used they may make evident our ignorance to ourselves, and this is much. For what are we? Whence do we come? and whither do we go? Is
birth the commencement, is death the conclusion of our being? What is birth and
death? (Shelley 259)

Ruston is troubled with this essay, calling it out of character for Shelley’s work, and with the “central, canonical works we are accustomed to reading for his views on politics, religion and science” (Ruston “P.B. Shelley” 10). Yet it is this very topic that is actually at the center of politics, religion, and science during this portion of the nineteenth century. Shelley argues that life is the very thing that forbids a scientist from objectively analyzing it, that life is so inherently central to our existence that it is impossible to study it. Shelley states: “LIFE and the world, or whatever we call that which we are and feel, is an astonishing thing. The mist of familiarity obscures from us the wonder of our being. We are struck with admiration at some of its transient modifications, but it is itself the great miracle” (Shelley 257).

The most famous meeting of the Shelley circle at Lake Geneva in 1816 spawned Mary Shelley’s contribution to the genre of science fiction in the form of *Frankenstein*. But *Frankenstein* was not the only work to come out of that meeting. Dr. John William Polidori (1795-1821) occupies a space in Romantic history by virtue of his connections with the Shelley circle, and from his controversial work *The Vampyre*, which he began in Switzerland that year. The convoluted history of *The Vampyre* is easy to summarize. After Polidori wrote the manuscript, it fell into the hands of a female friend, who then passed it along to be published. In 1819, the novel was published but incorrectly attributed to Byron, and a long struggle ensued between Polidori and Byron. Scarred from the public controversy and heavily in debt, Polidori died from suicide by poison in his father’s London house in 1821 (Stiles et al., “Somnambulism” 789). Although
Polidori is best known for *The Vampyre*, he also wrote several other works such as the drama *Ximenes*, and another novel entitled *Ernestus Berchtold: or, the Modern Oedipus*. Polidori was another man of science connected intimately to the literary geniuses of the Romantic era.

Polidori attended medical school at the University of Edinburgh in 1810, where he wrote his thesis on sleepwalking and received his degree in at age 19. His doctoral thesis in 1815, on sleepwalking, or somnambulism, influenced his later fiction as well as the Gothic genre as a whole. The emphasis in this medical university was on theories and systems of medicine, and not necessarily on their practical application. Trained doctors felt that the practice of medicine could be learned outside of the institution, by apprentice or by observation. At the university itself, demonstration rooms were overcrowded and cadavers scarce (Stiles et al., “Somnambulism” 791). After completing his degree in three years, Polidori practiced medicine in Norwich for a time, until he was hired to serve as personal physician to Lord Byron in 1816. This was just after Byron left England, following his affair with his married half-sister Augusta.

It is worth noting another connection between the players here; Davy and Byron were briefly acquainted in the spring of 1813, and Byron even put him in the first canto of *Don Juan* in 1819 (Holmes 350). In “Canto I,” Byron wrote:

> This is the patent-age of new inventions
> For killing bodies, and for saving souls,
> All propagated with the best intentions;
> Sir Humphry Davy’s lantern, by which coals
> Are safely mined for in the mode he mentions;
Tombuctoo travels, voyages to the Poles,
Are ways to benefit mankind, as true,
Perhaps, as shooting them at Waterloo.

(Byron 69)

This small excerpt from the satirical poem *Don Juan* further defines the historical moment for society as a time of change and invention – whether or not for the better. Davy’s lamp is mentioned as an example of how science has begun to invent new things to save souls while, at the same time, industrialization and work conditions were killing bodies with new advancements in technology. However, exploration and war are mentioned here, even in jest, as ways to benefit mankind. Just as his contemporaries were, Byron was well aware of the broader and important impact of science on humanity, and contributed to the legacy of science and philosophy within the work of Polidori and the Shelley circle as a whole.

Byron took Polidori with him through Europe, and then rented the infamous villa Diodati at Lake Geneva in Switzerland, where Polidori’s official duties were to “prevent his anorexic, alcoholic employer from drinking and abusing laxatives” (Stiles et al., “Somnambulism” 797-798). Also likely on the list of his duties to Byron were to attend to his limp as needed. Ironically, it was Hunter who had diagnosed a young Lord Byron and recommended a corrective boot for his club foot. His advice was not heeded, either due to hesitation or poverty, and Byron dealt with a limp the rest of his life (Moore 232).

Various and sometimes contradictory accounts of the meeting at Lake Geneva still exist today. Most agree that galvanism, reanimation, and science were discussed in the midst of ghost stories. As Ruston notes, “The conversations with John Polidori in
Geneva on the ‘principles of life’ (to which, as is well known, Mary Shelley was a ‘silent but devout’ listener), were on a topic that Shelley would have been well qualified to discuss” (“P.B. Shelley” 9). James Rieger argues that Polidori, a first-rate physician straight out of Edinburgh, the top medical school of its day, was “far more likely than his noble employer to have involved himself, not to say held up his own end, in the following conversation” (468). Shelley and Polidori spoke about the principles of life, as accounted for in Polidori’s journal of the time, and likely spoke about somnambulism and automata (MacDonald 85).

Polidori’s brief time in the company of Byron and the Shelleys surely reinforced his childhood desire to write works of fiction, something he had tried to do in medical school as often as he could, and his creative work was inspired in part by his interest in sleep disorders from medical school. Polidori did not enjoy the medical profession, and desperately wanted to leave medical school. He was convinced to stay by his father, who told him “Return to your reason; and, if you will be mad, wait until I am dead” (qtd. Stiles et al., “Somnambulism” 719). Polidori was stuck in medicine, therefore, and alongside his studies he began to write tragic poetry, some of which became the content of his 1819 drama *Ximenes*. In Switzerland in 1816, Polidori began to write what would become *The Vampyre*, inspired in part by the ghostly tales and discussions of science he and his companions had shared there. The rest of the work came from Polidori’s medical knowledge and specialty: somnambulism.

Polidori’s medical school doctoral dissertation was on the subject of sleepwalking, or somnambulism, “a topic that at the time included sleepwalking and often other complex nocturnal behaviors (e.g. writing), all of which seemed to be
strangely automatic, and to the pious, frighteningly soulless” (Stiles et al., “A New Look” 771). His dissertation, titled “Inaugural Medical Dissertation Concerning Certain Aspects of the Disease Called Oneirodynia [Somnambulism],” included case studies on several subjects and their experiences with sleepwalking (Stiles et al., “Somnambulism” 789). For his research, he employed the Baconian method of observation, popularized as the scientific method at the turn of the century as discussed earlier (794). Recent work by Anne Stiles, Stanley Finger, and David E. Petrain clearly link the literary fiction of vampirism to the medical research concerning somnambulism, or sleepwalking. In their 2010 article “A New Look,” they usefully explore the medical connection in Polidori’s The Vampyre.

Lord Ruthven, the vampire antihero in The Vampyre, exhibits similar symptoms of sleepwalking similar to what Polidori described in his dissertation: “Ruthven’s uncommon physical strength, his occasional visual and tactile impairment, and his emotionless, machinelike behavior resemble the case studies presented in Polidori’s medical thesis” (Stiles et al., “Somnambulism” 790). This might seem at first simply to be an innocent connection among interests on Polidori’s part, but it also relates directly to the ongoing contemporary questions about life that plagued the Romanticists:

The conception of life as a fluid that can be pumped into a body by a Frankenstein or sucked out of it by a vampire is a material one. It was not, however, perceived as such, partly because it did present life as a very subtle material substance, added to the inanimate body both as an analogy to and as a prerequisite for the soul, and partly because the opposing view, that life was a function or state of the body itself was so much more obviously a materialist one (MacDonald 86).
Polidori favored the more conservative, vitalist attitude in his life and practices (MacDonald 86). Polidori’s tale explained life as a vampire, a monster by any definition, further extrapolated from the anxiety concerning what life meant, what humanity consisted of, and whether or not people can become or create monsters. *Frankenstein*, of course, pursued similar lines of inquiry.

Due to its connection to life-anxiety, somnambulism was a popular topic during the early nineteenth century, which, as we have seen, was a “time marked by a drive to understand the spirit of man, the domains of the soul, the functions of the cerebral hemispheres, and even strange, altered states of consciousness” (Stiles et al., “Somnambulism” 771). The behaviors in sleepwalking that Polidori spent time researching address a popular topic of contemporary medical research: whether or not there were automatic brain functions occurring during sleep, and whether there was any demonstrable connection between them and the idea of a free will, an individual soul (Stiles et al., “A New Look” 772). Polidori dramatized this conflict between the unconscious brain and the conscious mind that was supposed to regulate the body at the will of the individual: “For Polidori and his contemporaries, the sleepwalker symbolized a central controversy of Romantic medicine. If behaviors involving higher brain functions (such as speaking, writing, or sensory perception) could be accomplished automatically by sleeping persons, as Polidori’s case studies suggested, then the regulatory power of the soul or will appears questionable” (Stiles et al., “Somnambulism” 804) Or, in terms discussed above, this would confirm Lawrence’s convictions about materialism.

The literary impact of the vitalist debates is huge. It stimulated the growth of a new genre of science fiction in which Mary Shelley’s *Frankenstein* participated, and it
allowed poets to explore the definition of life in their verse and prose. Because of these deep and interwoven connections between the players of the Romantic era, the ideas surrounding what life was grew in complex but interrelated tangents and ways beyond the simple definitions of vital and material. Life had purpose, but it was up to the individual, apparently, to discover and defend what that meant to humanity.

Part 4: Conclusion

So, what is life? Is it indebted to a vital element, as Hunter, Davy, and Abernethy would argue? Some small bit of soul, of divine creation, that creates life? Or does it confirm the worst fears of the anxious population, that materialism is correct and humans are simply a lucky conglomeration of tubes and electricity, able to function as a machine would, as Lawrence contended, as Polidori dreamt of in creating Lord Ruthven? Where is life located? Hunter situated it within the blood; Abernethy thought it emanated from the fluidity of electricity described in Davy’s work. Wordsworth and Coleridge believed in the concept of a soul, of individual morals and purpose, and Shelley leaned toward a fundamentally materialist understanding of existence.

The general anxiety concerning life in the Romantic era leant itself to universal questions like these. Society was in the midst of a great change with the advent of industrialization, urbanization, and a growing assimilation into the middle-class workforce. All placed the individual in ever greater jeopardy, and all were moves away from the nature that was nevertheless held in such importance to the great poets of the time. The urgency of this change explains why the public were so tuned in to this debate, and why they so preferred vitalism over materialism. To abandon the concept of special,
divine, interventional hand as what gave life to the human body would be to reject what many saw as the truth of religion, of individuality, and of the soul.

The very definition and use of the word “life” changed drastically within the chronological confines of the Romantic era. The Oxford English Dictionary cites clearly that the popular use of the word changed drastically from 1765 to 1880:

1765 W. Blackstone *Comm. Laws Eng.* Life is the immediate gift of God.


1880 L. Morris *Ode of Life* Life! what is life, that it ceases with ceasing of breath?

(“life”)

From the overtly religious overtones in a classic of English law that describes life as a gift from divine hands, the turn of the century transformed the term into a series of symptoms. And then, near the end of the century, the ever-present question, persisting far beyond the Romantics and still in the popular literary sphere paradoxically marries an exclamation and a question: “Life! What is life?”
Works Cited


archive.org/details/essaysobservatio01hunt/page/114


