

The Metamorphosis of the Myth of Alquemy in the Romantic Imagination of Mary and Percy B. Shelley

La metamorfosis del mito de la alquimia en la imaginación romántica de Mary y Percy B. Shelley

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Abstract

This article takes as starting point the myth of alchemy in Mary Shelley's Frankenstein or the Modern Prometheus, often interpreted as a warning of the risks and dangers of science and technology demonized in the form of the creature. Set in the Romantic period, the paper argues that the novel stages an ambiguous relationship between the advances in natural science and the philosophical and spiritual concerns that Mary Shelley inherited from her father, the philosopher William Godwin, which she discussed with her husband, the poet Percy B. Shelley. In the context of contemporary interdisciplinary discourses that contemplate 'consilience' between the humanities and the sciences, this paper offers a reading of Frankenstein and of Percy B. Shelley's essay "A Defence of Poetry" as critical of empirical science in their ambiguous positioning with regards to alchemy and contemporary science. Furthermore, the research seeks to establish links with eco-cybernetic theories which bring to the fore a renewed interest on humanistic aspects.

Key Words: Alchemy - Frankenstein or the Modern Prometheus - Metamorphosis - Natural vs. modern science - Poetry - Mary Shelley - Percy B. Shelley

Resumen

Este artículo presenta las transformaciones que sufre el mito alquímico en la obra de Mary Shelley, Frankenstein o el moderno Prometeo, un relato frecuentemente interpretado como advertencia de los peligros de la ciencia y la tecnología demonizados en la criatura. Ambientado en el periodo romántico y el avance de la secularización, la novela muestra la relación ambigua entre los avances de las ciencias naturales y las preocupaciones filosóficas y espirituales que Mary Shelley heredó de su padre, el filósofo William Godwin, y debatió con su marido, el poeta Percy B. Shelley. En el contexto de la interdisciplinariedad del discurso contemporáneo que contempla la 'consiliencia' entre las humanidades y las ciencias, este artículo ofrece una lectura de Frankenstein y del ensayo de Percy B. Shelley, "Defensa de la poesía" como cuestionamiento radical de la ciencia ilustrada mediante su posicionamiento ambiguo con respecto a la alquimia y la ciencia empírica. Es más, la investigación busca establecer vínculos con teorías eco-cibernéticas contemporáneas que llaman la atención sobre los aspectos humanísticos.

Palabras clave: Alquimia - Ciencias naturales y ciencias empíricas - Frankenstein o el moderno Prometeo - Metamorfosis - Poesía - Mary Shelley - Percy B. Shelley

1. Introduction

Despite the large number of critical responses that Mary Shelley's *Frankenstein or the Modern Prometheus* has generated over the years, the relationship between the topic of alchemy, signalled obscurely at the beginning of the novel, and the final purpose of Victor Frankenstein's pursuits, has received little attention. This lack of interest may be due to the fact that alchemy has usually been dismissed as mystical pseudoscience. As Jonathan Hughes states, "during the Renaissance the emergence of empirical, scientific method was beginning to open a widening rift between scientific method and the occult" (Hughes 2012, 7). Superstition was under attack from the political fronts of Edmund Burke and Joseph Priestley, among others, while intellectuals, such as Samuel Taylor Coleridge, William Godwin, or Mary's husband Percy B. Shelley, "felt compelled to destroy, rebuild, or re-imagine the religious identity of the age." (Jager 2008, 792) In *Natural Supernaturalism*, M. H. Abrams argued that the romantic period saw "the secularization of inherited theological ideas and ways of thinking" (1971, 12), a view already expressed by Max Weber in *Wissenschaft als Beruf (Science as a vocation 1917)*. Following Weber, Abrams adds that the process did not involve "the deletion and replacement of religious ideas but rather the assimilation and reinterpretation of religious ideas, as constitutive elements in a world view founded on secular premises." (1971, 13)

The occult is defined as the investigation into the hidden forces of nature, where science and mysticism intermingled before the modern period, with the onset of empiricism. Nevertheless, the occasional re-emergence of Neoplatonic positions and the continuous interest for the occult in the minds of popular culture can be taken as a symptom that the relationship between 'empirical' versus 'natural' science is far from being closed. For example, recent findings on Isaac Newton's occult pursuits and his connections with alchemy and freemasonry keep the controversy alive (see, for instance, Michael Greshko's report for *National Geographic* on April 4th 2016).

Mary Shelley's *Frankenstein* reflects the perspective of the natural sciences and contemporary technological advances, inspired by the discoveries of empirical science (i.e galvanism). However, it also supplements it with the idea that alche-

my can hold the secret to the truth about human nature; not always empirically visible and describable by words. In the novel, attention seems to be directed almost exclusively to aesthetics (the monstrosity of a creature made up of parts), and social behaviour (including not just the creature's horrible acts but also its creator's lack of responsibility). In this regard, the biological consequences of the transformation of the body through technological manipulation were explored almost exclusively in relation to anxieties generated by scientific advance, a criticism which has persisted well into the 20th century and beyond, for instance in relation to genetic engineering.

The first part of this paper provides an alternative construction to the 'operative fiction' created by Mary Shelley's re-enactment and its later interpretations. The expression 'operative fiction' refers to common knowledge which is passed on via processes of socialization, under the assumption that everyone shares it (Schmidt 1996; 2010). This 'operative fiction' becomes a 'myth', in the terms explored by Roland Barthes in *Mythologies*, so that Shelley's *Frankenstein* is contemplated as an extension of Prometheus myth in a modern (empirical/secular) context.

The hypothesis proposed is that the novel shows an ambivalent position that seems to privilege Enlightenment science, but returns to alchemy in order to signal a number of shortcomings in modern empirical science, a point already raised by Markman Ellis (1999). Taking Ellis' contribution as starting point, the present study also explores the impact of Shelley's interest in alchemy in relation to the development of alternative psychological and spiritual responses to rational materialism in the 19th century, and extends this research to discuss the relationship between changing technologies and intermedial communication formats. The paper is also concerned with Percy B. Shelley's essay "A Defence of Poetry", written in 1821 after the publication of the first edition of *Frankenstein* and published in 1840 after Percy's death. Mary's husband uses the metaphor of alchemy to describe the relationship between reason and imagination, and the role of poetry. By returning to alchemy, the occult and the hidden, the Shelleys stress the limitations of perception and cognition present in empirical science and its emphasis on visibility.

2. Methods

In *Dialectic of Enlightenment* (1947) Theodor Adorno and Max Horkheimer expanded Max Weber's hypothesis (in *Science as a Vocation* 1917) that occultism was a response to the disenchantment brought by modernization and instrumental reason. Alex Owen explains that "the formulation of an occult subjectivity was inseparable from the instrumental reason that Weber argued is intrinsic to the complex social process of modern order." (2004, 14). Against Weber's picture of modernity as a process of disenchantment, Owen's *The Place of Enchantment: British Occultism and the Place of the Modern* defends that in Britain, occultism constituted an attempt to rehabilitate the irrational via a reworking of the idea of reason in the mystical domain. Owen goes on to argue that this form of mysticism depended upon a new concept of selfhood and the emergence of psychology in literary fiction (2004, 237-6). To Owen, these explorations are not statements of irrationality, but the symptoms of a larger conception of rationality that recognizes the limitations of reason (2004, 115-116). She argues that the modern self is subjective, as Weber indicated, but not necessarily secular, and that the mystical and the spiritual emerges in various cultural forms which include her revision of occultist movements in the 19th and 20th centuries. Owen's final argument is that there is a relationship between occultism and social change (2004, 263), noting that although Adorno in *The Stars down to Earth*, and the Frankfurt School in general, accused occultism of being a form of unreflective rationality emerging from the Enlightenment (2004, 241-242), he failed "to recognize the relativism of [his] own self-reflexivity" (2004, 248).

One of the scholars to acknowledge the significant role that alchemy played in the development of modern science was the Austrian-Croatian philosopher, architect (designer of the Goetheanum), and social reformer, Rudolf Steiner. Basing his ideas on Johann Wolfgang von Goethe's epistemology, Steiner explored Goethe's fairy tale *The Green Snake and the Beautiful Lily*, moving from ideas advocating an ethical and spiritual individualism in *Die Philosophie der Freiheit* (1892) (*The Philosophy of Freedom or Spiritual Activity*) to work on theosophy and anthroposophy, seeking ways to integrate religious and psychological experiences into social life (see online information on the 150 anniversary of Steiner in 2011 and Stuttgart exhibition "Cosmos: the alchemy of everyday").

In part due to his visits to India, the Romanian historian of religion Mircea Eliade, also recognized that “the historian’s perspective has been vitiated by his eagerness to demonstrate the beginnings of experiment and observation found in certain alchemical works and consequently he has assigned an exaggerated importance to those texts which revealed the first rough groupings toward the scientific method while ignoring others in which the alchemical perspective was patently more valuable” (Eliade, 1978, 13; on the transcultural ties with India and the West on the topic of occultism, see Cho, Kurlander, and McGetchin 2014)

Bruce Moran has also contributed to undermine the notion that modern science as the triumph of reason over the mysticism. Moran traces the coexistence of approaches in a “social mixture of learned and artisan, of occult, spiritual and mechanical.” (2005, 4 & 187) Tara Nummendal (2007) explored the reactions among alchemist themselves to accusations of fraud, superstition and black magic, while Lawrence M. Principe (2007) exposed the paradoxes in the theoretical positions of vitalism and mechanism underlying the principles of alchemy and modern science.

Expanding M. H. Abrams in *Natural Supernaturalism* in new directions, *The Female Thermometer: Eighteenth-century Culture and the Invention of the Uncanny* by Terry Castle provides a way of thinking about how the supernatural and the modern conception of subjectivity recasts belief not as superstition, but as spectral projections of the fragmented subject which emerged in the late eighteenth century.

The research proposed here dwells on all these insights to stress the negotiation between alchemy and modern science as well as limitations of the formative power of experience as a premise to scientific reason and the origins of human psychological development, as shown by the two Shelleys.

3. Discussion: Double Coding and Radical Politics

Percy B. Shelley’s essay “A Defence of Poetry” was written 1821 after the publication of the first edition of *Frankenstein* and published posthumously in 1840. Inspired by the Paracelsian metaphors that Mary’s father, William Godwin, had

begun to develop in *Caleb Williams* (1794) and *St. Leon: A Tale of the Sixteenth Century* (1799), Mary's husband uses alchemy to describe the relationship between reason and imagination, and the role of poetry

Poetry turns all things to loveliness; it exalts the beauty of that which is most beautiful, and it adds beauty to that which is most deformed; it marries exultation and horror, grief and pleasure, eternity and change; it subdues to union under its light yoke all irreconcilable things. It transmutes all that it touches, and every form moving within the radiance of its presence is changed by wondrous sympathy to an incarnation of the spirit which it breathes: *its secret alchemy* turns to potable gold the poisonous waters which flow from death through life; it strips the veil of familiarity from the world, and lays bare the naked and sleeping beauty, which is the spirit of its forms. ("A Defence of Poetry" 50 emphasis added)

For Percy B. Shelley "ethical science arranges the elements which poetry has created" (16) and leads to a moral civil life. Poetry acts in a way that "awakens and enlarges the mind itself by rendering it the receptacle of a thousand unapprehended combinations of thought" (16). According to Shelley humans have two mental actions: reason and imagination. Poetry in humans is related to the imaginative sphere of the mind. Shelley emphasizes the importance of sound and rhythm in poetry and explains the great effects they have upon the human mind. The harmonious sound or "eternal music" that poetry creates awakes men. Even prose that follows rhythm is able to generate a spark of poetic thought. There are some prose authors, Shelley states, like Plato, Cicero or Lord Bacon who create with language such a sweet and majestic rhythm, capable of teaching the truth of things (11). Thus, prose can also create analogical images of things with a harmonious and rhythmical sound which itself contains the same feature of verse, which to Shelley is a divine expression of imagination which, according to Shelley, arises from within the self in a process of maturation and abstraction where the inner self world seeks connection with the external world of divine and transcendent creation. The discourse of the natural sciences, magnetism and alchemy is used a simile to explain this process (Friedman 2010, 625) as in the following quote from Shelley

Poetry is indeed something divine. It is at once the centre and circumference of knowledge [...] It is at the same time the root and blossom of all other systems of thought; it is that from which all spring, and that which adorns all, and that which, if blighted, denies the fruit and the seed, and withholds from the barren world the nourishment and the succession of the scions of the tree of life ("A Defence of Poetry", 47)

In Shelley, poetry to the alchemical ferment in its capacity to transform into a 'transitional' medicine or 'pharmakon'. In a poetical composition, a single word could generate a spark of inextinguishable thoughts. ("A Defence of Poetry", 13) Thus, poetry feeds imagination which is likewise the instrument of moral: "poetry strengthens the faculty which is the organ of the moral nature of man." ("A Defence of Poetry", 17) A verse is able to generate endless thoughts, multiplicity within unity; poetry being a "faculty which contains within itself the seed at once of its own and social renovation" ("A Defence of Poetry", 28) Shelley believes that social change could take place by poetry, and that the masters of revolution are the artists, and in particular the poets.

And this springs from the nature itself of language, which is a more direct representation of the actions and passion of our internal being, and is more plastic and obedient to the control of that faculty of which it is the creation. For language is arbitrarily produced by the imagination, and has relation to thought alone; but all others materials, instruments, and conditions of art have relation among each other, which limit and interpose between conception and expression. ("A Defence of Poetry", 8)

Against the demise of rhetoric during the Renaissance and the Baroque periods, Shelley's "Defence" of poetry is striking and shows that "the victory of experimental science over rhetorical truth-finding was helped by developments in the art itself" (Bulhof 1992, 133-134). In this sense, Shelley's "Defence" uses the ambiguity of language, and of poetry in particular, to return to Paracelsus and the world of alchemy as a paradigm of the importance of differentiation; of variety within unity. Indeed, according to Elizabeth Ebling (1935, 508-525), Paracelsus¹ pantheistic conception informs many of Shelley's works (see also Bianchi 1994, 20). Paracelsus'

Philosophia ad Athenienses develops the concept of *Mysterium Magnum*, a primordial undifferentiated matter where all the entities are mixed up; something formless that thanks to both analogy and transformation (metamorphosis) earns shape by dying in order to be reborn (Bianchi 1994, 21). Andrew J. Welburn and Thomas Heinzen (1986) have also pointed out the influence of alchemy upon Percy B. Shelley, an influence that is also present in *Frankenstein* in various forms.

It's notorious that Shelley makes allusion to the poet as hierophant or guide that teaches and unveils sacred mysteries and science (from Latin *Scientia* = knowledge of nature). The figure represents the union of two worlds: the divine and the physical. Present in the Egyptian and Greek traditions, the hierophant is the title of the chief priest who participates at the Eleusinian Mysteries, an initiation rite held every year for the cult of Demeter and Persephone based at Eleusis in ancient Greece. The figure also appears in other occult traditions such as the Kabbala and the masonic rite. Shelley's aim, following Dante (see "A Defence of Poetry" 12, 35, 44, 60) is to use poetry to trigger social and political change by moving people's consciences: "The most unfailing herald, companion and follower of the awakening of a great people to work a beneficial change in opinion or institution, is poetry" ("A Defence of Poetry", 56) Thus, according to Shelley, the purpose of poetry is to mediate and raise awareness for the need of radical change and liberation movements (Scrivener 1982, 51).

Although the majority of Percy B. Shelly's artistic production is formed by poems, his prose *St. Irvyne; or The Rosicrucian*, written in 1810 and published by John Joseph Stockdale in 1811, reveals the ambiguity so characteristic of the gothic genre, and provides a glimpse of Shelley's social concerns: the corruption of the social system, the emotional limitations of religion, or his ideas free love and sex against institutionalized ceremonies. In *Franskenstein*, Mary Shelley is also critical of the social system, its unfair norms, and institutions like marriage. Thus, the character of Justine (note irony in her name) is unjustly accused of Victor's brother murder and receives an "equitable" (1818, 58-60) punishment for the homicide. In the letter that Elizabeth sends to Victor, she manifests that although their marriage is already arranged she would not be happy unless he followed his own free choice (Ibid, 135). *St Irvyne* and *Frankenstein* share the aforementioned sense of duplicity or coexis-

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tence of apparently contradictory things. In *St. Ivryne*, science (natural philosophy) and the supernatural run parallel, while in *Frankenstein* science and alchemy (or hermetic knowledge) stand together. Victor Frankenstein shares with Ginotti (one of *St. Ivryne*'s main characters) an eagerness for a secret knowledge, and the same interest on natural philosophy. Both stories make use of the same tools: ambiguity and 'double coding' in order to partially reveal hidden message concerning radical social politics (see López-Varela 2015 & 2016 on hybrid narratology).

In 1810 Percy B. Shelley had published his first collection of poetry, *Original Poetry by Victor and Cazire*, with his sister Elizabeth. Victor was Shelley's first pen-name. Elizabeth's was Cazire, a name taken from the heroine of *Confessions of the Nun of St Omer* by Charlotte Dacre, a gothic romance of 1805 (Hawkins 1995, 86)². The collection was withdrawn after negative reviews. In her biography of Mary Shelley, Anne Kostelanetz Mellor noted the influence of this work on Mary's novel. Noting the parallels between Victor Frankenstein and Percy B. Shelley, Mellor writes that their education was similar: "both were avid students of Albertus Magnus, Paracelsus, Pliny, and Buffon; both were fascinated by alchemy and chemistry; both were excellent linguists, acquiring fluency in Latin, Greek, German, French, English, and Italian (1988, 7). The monster's first victim, William Frankenstein, was also named after the Shelleys first son, and the novel itself is set in many of places the couple had visited in their European tour.

In 1996, Charles E. Robinson published *The Frankenstein Notebooks*. This was followed by *The Original Frankenstein* in 2008. These works show the differences between Mary's Ur-draft, the original idea for the story envisioned in the summer of 1816, a first draft from 1816-17, the first printed edition of 1818, and the major revised edition of 1831. The research shows Percy B. Shelley's annotations on the original text and, thus, his role in the composition of the novel. Evidence would suggest that Mary and Percy worked together even if Percy's role would have been that of advisor and editor.

Mary Shelley's diaries from 1816 record her efforts in documenting her initial idea for the novel, presented to her friends, Lord Byron and John Polidori, as well as her husband-to-be, Percy Bysshe Shelley, in the summer of 1816 at Villa Dio-

dati. Her initial draft underwent a number of substantial revisions. First, she was aided by her husband, who had been introduced to the theories of Erasmus Darwin (1731-1802), grandfather of Charles Darwin, by Mary's father, William Godwin. The letters that Percy B. Shelley wrote to his friend, the lawyer Thomas Jefferson Hogg, state his interest in Darwin's works and their impact on his notes to *Queen Mab* (1813), "The Cloud" (1820), "The Sensitive Plant" (1820) and *Prometheus Unbound* (1820). This acknowledgement also appears in the preface to the 1818 edition of *Frankenstein*, written in collaboration with his wife. The reference is again present, although in a vaguer form, in the revised third edition of 1831, which appeared after Percy's death. Mary Shelley recalls that during their stay at Villa Diodati "various philosophical doctrines were discussed, and among others the nature of the principle of life [...] They talked of the experiments of Dr. Darwin [...]" (227) Indeed, the alchemist's pursuit of various forms of elaboration of the *elixir vitae* (immortal life) remained a popular if ideologically ambiguous cultural motif.

As in the preface to the 1818 edition, written in collaboration with Percy, the 1831 edition mentions Erasmus Darwin: "They talked of the experiments of Dr. Darwin, (*I speak not of what the Doctor really did, or said that he did, but, as more to my purpose, of what was then spoken of as having been done by him,*) who preserved a piece of vermicelli in a glass case, till by some extraordinary means it began to move with voluntary motion. Not thus, after all, would life be given." (1831, 10; emphasis added) Her description emphasizes the way the doctor's achievements were passed on and retold in the form of discursive variations, made up of "parts", like the creature itself, that "might be manufactured, brought together". Sleepless, Mary's imagination put the story together, "gifting the successive images that arose in my mind with a vividness far beyond the usual bounds of reverie." The story takes shape in her head almost as the creature does in Victor's laboratory; "drawing the curtains" to let in the light, looking upon him, upon her, the creator "with yellow, watery, but *speculative* eyes." (Ibid. emphasis added) It is the term "speculative" that marks the difference here. Like his/her creator, Victor's creature, Mary's story, stares seeking to understand the occult, wanting to unveil the secret behind the eyes, behind the words.

Charles J. Thoman has also written about Sir Humphry Davy's influence on Shelley's novel, as a model for Victor Frankenstein's professor at the University of Ingolstadt, M. Waldman. Davy was one of the founding members of the Royal Institution, devoted since January 1802 to the advancement of science, and he collaborated with other scientists such as James Watt, one of the engineers involved in the development of the steam engine. On his part, Davy was more interested on the potential advances of electricity, seeking to produce it by a combination of chemical compounds and galvanism. He also collaborated with Gay-Lussac in Paris and with Michael Faraday in Florence. Mary's journal mentions that she read the Introduction to Sir H. Davy's 'Chemistry', which he published in 1812.

Waldman criticizes alchemy in the following terms: "The ancient teachers of this science [...] promised impossibilities, and performed nothing. The modern masters promise very little; they know that metals cannot be transmuted, and that the elixir of life is a chimera." (42) He goes on to add that "these philosophers, whose hands seem only made of dabble in dirt, and their eyes to pour over the microscope or crucible, have indeed performed miracles. They penetrate into the recesses of nature. And shew how she works in her hiding places." (Ibid.) His discourse seems to oscillate between a desire to embrace the new science and a nostalgia for the secret knowledge of the ancient alchemists when he describes that "they ascend into the heavens; they have discovered how the blood circulates, and the nature of the air we breathe. They have acquired new and almost unlimited powers; they can command the thunders of heaven, mimic the earthquake, and even mock the invisible world with its own shadows." (Ibid.) A similar position is taken by Davy in his text, where he describes the contemporary chemist as someone with powers of creativity that extend beyond reason to embrace vision and intuition as well as ethics. ("Historical View of the Progress of Chemistry" In *Elements of Chemical Philosophy* 1812: 16-17)

Patrick Harpur has argued that alchemy sought the "coincidentia oppositorum" (2002, 135-154) that seems to be staged in Mary Shelley's novel. In this sense, the narrative can be contemplated as a mirror of alchemic processes that seek to integrate various kinds of knowledge that manifest "itself indirectly, as something other than itself" (Harpur 2002:143). This duplicity appears in various ways in the

novel. For instance, in the way Victor Frankenstein regards his engagement with science, which he describes as “natural philosophy”. Markman Ellis points out that this engagement takes the form of catastrophe occurring on a rainy day in a hotel near the mineral baths at Thonon-les-bains, a place is situated, like Villa Diodati, on the shores of Lake Geneva, although not in Switzerland but in France. Victor is reading a volume of the works of German alchemist Cornelius Agrippa of Nettesheim, and Shelley explains that the reading brought a new light to his mind. When Victor tells his father about this discovery, the father recommends him not to waste time with old trash. (1818, 22-23) A few pages later, Victor describes “a stream of fire issue from an old and beautiful oak”, blasted by lightning outside his home. He is shocked at finding “the tree shattered in a singular manner” (35), but he adds that “the catastrophe of this tree excited my astonishment” (35), which “completed the overthrow of Cornelius Agrippa, Albertus Magnus, and Paracelsus, who had so long reigned the lords of my imagination.” (1818, 35). Thus, catastrophic accident and chance are instrumental in the way Victor Frankenstein learns about electricity³.

The tree of life, struck by lightning in *Frankenstein*, is a cultural archetype, connected with the three cosmic spheres and the *axis mundi*. In the Jewish Kabbalah, the scions are emanation fruits, divine energy that reaches the world, as Percy B. Shelley writes “All high poetry is infinite, it is as the first acorn, which contained all oaks potentially” (“A Defence of Poetry” 40).

In *The Radical Enlightenment: Pantheists, Freemasons and Republicans*, Margaret C. Jacob noted the “blending of science and mysticism” (1981, 35 cited in Ellis 1999, 7) maintained its continuity from the Renaissance well into the Enlightenment and the Romantic periods. The duality is visible, for example, in Victor Frankenstein’s idiosyncratic education which oscillates between his early alchemic readings and his approach to modern science. However, it is after the death of his mother, during his residency at the University of Ingolstadt, that Victor’s grief turns into an obsession to restore life (1818, I, 27). Ellis also notes that Ingolstadt, established in 1472, had been the *alma mater* of Faustus’ legend, as depicted by Marlowe and Goethe. In 1776, a society of freethinkers (Freemasons) known as Illuminati (the enlightened ones) established its headquarters at the university,

under the Jesuit Adam Weishaupt. Their liberal ideas attracted the attention of Goethe as well as other German intellectuals at Weimar⁴.

Victor's education at Ingolstadt is marked by two men, conceited Monsieur Krempe, "a little squat man, with a gruff voice, and repulsive countenance" (1818, I, 29), and Monsieur Waldman, "with an aspect expressive of the greatest benevolence" (1818, I:30). Modelled on Davy, and perhaps also on Weishaupt, Waldman seeks alchemy as a positive precursor of natural science, an inclination that Victor, like Percy B. Shelley, also shares. He describes Agrippa and Paracelsus as "men to whose indefatigable zeal modern philosophers were indebted" (1818, I, 31). Ellis notes that this proves that "Victor has not abandoned alchemy or magic but has supplemented it" (Ellis 1999, 11), and that his pursue of the elixir of life is continued by means of the study of anatomy, where he can "observe the natural decay and corruption of the human body" (1818, I, 33). Indeed, putrefaction (*nigredo*), coagulation or solidification (*albedo*) and culmination (*rubedo*) are important alchemical steps, described by Roger Bacon (1214-1292) in "*The root of the world*", where alchemy is described as an applied art, not a natural but an artificial process where, as in Aristotle's conception of mimesis, man learns to re-create by means of *techne* (see introduction to this thematic issue of *Icono* 14).

For Ellis, quotations such as "I saw how the fine form of man was degraded and wasted; I beheld the corruption of death succeed to the blooming cheek of life; I saw how the worm inherited the wonders of the eye and brain" (1818, I, 33-34)" indicate that Victor seeks in alchemy what he is not able to find in Enlightenment science, "to change from life to death, and death to life" (1818, I, 34), the secret knowledge to which only a selected few have access. Everything in the novel, Ellis notes, points to secrecy. Victor keeps in secret his readings from his father, refuses to disclose his discoveries to his family and friends, except for Elizabeth, who promises strict secrecy, and entreats Walton to listen to his story, in the hope that he will eventually "be informed of the secret with which I am acquainted" (1818, I, 35). "Listen patiently until the end of the story", he insists, "and you will easily perceive why I am reserved upon that subject." (Ibid.).

Victor's laboratory, his workplace, is also described "a solitary chamber, or rather cell, at the top of the house" (1818, I, 36). Both terms, 'laboratory', in its relation to 'labour' (understood here as work but also a giving birth), and 'cell', point to the physiological nature of Victor's pursuit, reflected also in the alchemical discourse used throughout. Ellis notes that this desire is even more pronounced in the third edition where he seeks to "divine" the "secrets of nature" (1831, 37). Indeed, the term divine shares etymological roots with 'divination' (meaning the realm of the divine or God) as well as sorcery and magic. For Ellis, who quotes George Simmel, "Secrecy secures [...] the possibility of a second world alongside the obvious", functioning as a form of subversion and "conspiracy against existing powers" (Simmel 1906, 462, 498; quoted in Ellis 1999, 17). For this reason, Ellis notes that the novel's emphasis on alchemy, is a sort of "redemptive force of deep history", "not merely perverse Gothicism." (Ibid.) The author concludes that "the novel's concern with the secret workings of underground figures like Victor, and the persecutions of his creation, suggest an enigmatic engagement with radical politics." (Ellis 1999, 18) Radical politics in indeed one of the areas that Percy B. Shelley and Mary's father, William Godwin, had in common.

4. Final Threads

The relationship between Mary Shelley and her father William Godwin became very close in the last years of his life. When the Shelleys moved to Italy in 1818, Godwin became Mary's literary agent and arranged the publication of most of her works. He supervised the republication of *Frankenstein* in 1823, and helped his daughter to solidify her position as a writer (see Mary's *Letters*, I, no. 194), particularly after Shelley's death in 1822, when she returned to England. In spite of their age differences, Godwin was then sixty and Mary nearly twenty-six, they became dependent on each other for personal reasons and professional inspiration, with common interests on the topic of alchemy and the natural sciences as shown in the direction of their publications. In 1832, Mary wrote to her father's publisher John Murray to try to persuade him to publish Godwin's *Lives of the Necromancers* which Murray refused to publish because of its irreligious character (Smiles 1891, 328-329). The book appeared in 1834 published by Frederick J. Mason, just before Godwin's death the following year.

Godwin's purpose in *Lives of the Necromancers* was to survey the records of how those who "believed themselves gifted with supernatural endowments, must have felt exempt and privileged from common rules, somewhat in the same way as the persons whom fiction has delighted to portray as endowed with immeasurable wealth, or with the power of rendering themselves impassive or invisible" (6). The same year, a few months after the publication of the third edition of *Frankenstein*, Mary productively embarked on a project for Irish Scientific writer Dionysius Lardner who edited the 133-volume *Cabinet Cyclopædia*, as sole female contributor. She wrote three volumes of *Lives of the Most Eminent Literary and Scientific Men of Italy, Spain and Portugal* (1835–37) and two volumes of *Lives of the Most Eminent Literary and Scientific Men of France* (1838–39), including biographies of great men from the 14th century, and among them many alchemists. Her interest on science and technology paralleled her search for the spiritual aspects hidden in the nature of living things.

This paper ends throwing the threads of a work in progress. We hope to have provided an overview of the debate concerning the natural and the empirical sciences during the Romantic period, and how the myth of alchemy began to be used in literary fiction to represent, after the onset of empiricism, a desired union of the spiritual and the physical realms to which many artists and intellectuals aspired. In the wake of William Godwin's pursuits, and with no space to discuss his influence in greater detail, alchemy appears as a form of double coding used by Mary's and Percy B. Shelley to unveil the limitations of empiricism and other forms of scientific inquiry based on observation. Their pursuit for alternative and more comprehensive ways to 'non-visible' and 'process' (transformational) knowledge, as well as their insistence on keeping such knowledge hidden, creates unresolved tensions and gaps that help *metis* resonate (see introduction to this thematic issue of *Icono* 14), in the play between the unity and apparent multiplicity of existence.

Anticipating the postmodern debate, the tension between nature and *techne* is evident in Mary's and Percy B. Shelley's hermetic double coding. As in Plato's *Phaedrus*, the limitations of *techne* and its eventual subordination to dialogue and anamnesis, are evident in their interpretations and respective analogies between aesthetics, the pharmakon of the soul, and medicine, necessary for a healthy physical body as well as for virtuous social rules of conduct. In the words of Gianni Vattimo

[O]ne cannot talk with impunity of interpretation; interpretation is like a virus or even a pharmakon that affects everything it comes into contact with. On the one hand, it reduces all reality to message -- erasing the distinction between *Natur* and *Geisteswissenschaften*, since even the so-called "hard" sciences verify and falsify their statements only within paradigms or pre-understandings. If "facts" thus appear to be nothing but interpretations, interpretation, on the other hand, presents itself as (the) fact: *hermeneutics is not a philosophy but the enunciation of historical existence itself in the age of the end of metaphysics*. (2005, 45 emphasis added)

Notas

- [1] Theophrastus Bombastus von Hohenheim (1493-1541).
- [2] Shelley contributed seven lyrical poems and four Gothic poems on the topic of revenge, one entitled "The Avenging Demon". In *The Dark Angel: Gothic Elements in Shelley's Works*, John V. Murphy noted that the revenge motif was a major theme in Percy B. Shelley's writings.
- [3] The works of the Renaissance German occultists Cornelius Agrippa (1486- 1535) and Johann George Faust (c. 1480-1541) had been a source of inspiration for Christopher Marlow's *Dr. Faustus* (1592), and Goethe's *Faust* (1832). The city archive of Ingolstadt, where the *Frankenstein* is set, has a letter dated 27 June 1528 which mentions a Doctor Jörg Faustus von Haidlberg. The British occultist Francis Barrett had published a compilation of Agrippa's thought in 1801 under the title *The Magus, or Celestial Intelligencer*, including additional material dealing with cabalistic speculation, numerology, hermetic philosophy, as well as speculations on magnetism. Abraham Hayward was the first to provide an English translation of Goethe's *Faust* in 1833.
- [4] After Pope Clement XIV's suppression of the Society of Jesus in 1773, Weishaupt became a professor of canon law. In 1784 he abandoned the university under accusation of sedition. In 1800 the university was relocated to Munich. After Weishaupt's death in 1830, the Order of Illuminati, which had become a secret society, was banned and its members dispersed.

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