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### Roger Bacon: The Christian, the Alchemist, the Enigma

Victoria Tobes

*University at Albany, State University of New York*

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# Roger Bacon: The Christian, the Alchemist, the Enigma

By: Victoria Tobes

vtobes@albany.edu

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Advisors: Dr. Patrick Nold and Dr. Mitch Aso

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**ABSTRACT:** This paper explores the life and work of 13<sup>th</sup> century English Franciscan friar, Roger Bacon in light of the spiritual-religious practice of alchemy. Bacon's works in pertinence to alchemy reflect his belonging to a school of intellectual thought known as Hermeticism; which encompasses the practice of alchemy. Bacon can be placed among other philosophic practitioners of alchemy throughout history; allowing for expanded insight into the life of this medieval scholar. Throughout history, Bacon's most well-known work, the *Opus Majus*, has been interpreted in a variety of ways. However, when considering what the practice of alchemy is at its Arabic roots, the sometimes vague and perplexing character of Roger Bacon becomes less elusive. Bacon has been called both a magician and a scientist as a result of the obscurity in his work; this paper explores the underlying motives Bacon had in constructing the *Opus Majus*. Roger Bacon expressed that *sapientia* or "divine wisdom" could be systematically obtained by following the revised scholastic curriculum he outlined in the *Opus Majus*. What is this *sapientia*? Where did Bacon get this idea? And why did Bacon work tirelessly to prove its efficacy to Pope Clement IV? This paper sets out to provide a deeper look into the place that alchemy held in Bacon's life and the reasons he wished to integrate it into the Christian learning curriculum at the universities of Paris and Oxford.

#### ACKNOWLEDGEMENTS:

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I owe my deepest gratitude however, to Roger Bacon who provided endless insight into matters concerning life and the world. Not only did he provide hard knowledge, but he also wrote about his views and beliefs concerning morals and virtues. I came to discover that Roger Bacon and I share a similar sentiment when it comes to "right" thinking and behaving. Though he lived 900 years ago, the ability to connect with Roger Bacon's work has allowed me to transcend time and expand my perspective to better understand not only the Medieval era, but history as a whole.

“Ancient views are too inaccurate and crude; as yet thinkers were groping their way round truth. All things were new to the first investigators, later those same matters came under the file. Nothing is perfect at its commencement... The time will come when careful study through long ages will bring to light the secrets of nature. A single lifetime is not sufficient for the investigation of such weighty matters. The people of a future age will know much that is unknown to us, and the day will come when posterity will be amazed at our ignorance of things so clear to them... Because the younger, that is those of a later age, in the progress of time possess the labors of their predecessors.”<sup>1</sup>

## Introduction

This account of Roger Bacon’s affiliation with the practice of alchemy, will evaluate the overarching themes of alchemy in its spiritual sense and the way these themes are reflected throughout Bacon’s work. Through making a biographical account of Bacon’s life and his writings while taking into consideration the texts Bacon encountered during his time spent studying as a Franciscan, conclusions regarding the influence of spiritual alchemy can be drawn in relation to the motives and content of Bacon’s major work, the *Opus Majus*. By weighing the conclusions drawn by modern scholars in the field against my own conclusions, I will demonstrate that alchemy influenced Bacon because of its spiritual implications in regard to a mystical or religious experience. The evidence of my conclusions is based primarily on two evaluations: The first is a partial assessment of alchemical texts that are directly referenced by Bacon; The second is the evaluation of both earlier and later alchemical works sometimes referred to as “Hermetic” literature. I will examine the deeper meaning of the alchemical language used by these sources and compare them to some of the themes prevalent in Bacon’s work; doing this will allow the similarities between these bodies of literature to be observed. This will also provide background for some of the other major themes and concepts prevalent

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<sup>1</sup> Bacon, Rogerus, and Robert Belle Burke. *The Opus Majus of Roger Bacon*. New York: Russell & Russell, 1962, 15.

throughout the *Opus Majus* such as Bacon's segments on *Experimental Science*, *Moral Philosophy*, and *Causes of Error*.

Through examining the life and work of Roger Bacon through the lens of alchemy in its spiritual context, it becomes evident that Bacon's work was predominately spiritual in nature despite the initial, more secular interpretations of his work. The reason why Roger Bacon wished for alchemy to be included in the Christian learning curriculum is because like other alchemists, he believed that it would facilitate a mystical or religious experience. Bacon believed this experience resulted in the attainment of what he called *sapientia*, or "divine wisdom." Bacon defines *sapientia* as "a supreme state of learning towards which an intellectual and spiritual elite might work for the benefit of the faithful and the ecstatic union with God achieved by the penitent soul."<sup>2</sup> However, Evidence in this paper suggests that *sapientia* was the wisdom gained by an individual capable of successfully creating the alchemical "philosopher's stone." Bacon believed that this wisdom was universal in nature, and that every individual was capable of reaching the same degree of wisdom. These elements suggest that the *Opus Majus* was aimed primarily at spirituality rather than science; However, according to Bacon, it was knowledge of alchemy and *experimental science* that was first required before a proper understanding of the other sciences in the *Opus Majus* such as optics and mathematics could be reached. This shows that Bacon's *Opus Majus* was more or less, his explanation of the inseparable integration of spirituality and science.

By providing evidence and background regarding alchemy in its spiritual sense, a clearer picture is developed. It remains evident as to why throughout history, Bacon had a significant

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<sup>2</sup> Power, Amanda. *Roger Bacon and the Defence of Christendom*, New York: Cambridge University Press, 2013, 153.

amount of influence in modern science as well as in spiritual alchemy and magic. On the one hand, “historians of science have been interested in Bacon as a part of their search for precursors of the modern objective experimental methods.” On the other hand, “Catholic philosophers and scholars have examined his pronouncements on various technical points concerning medieval Scholastic philosophy.”<sup>3</sup> However, Bacon’s scientific advancements were secondary to religion and philosophy. It was *sapientia* that Bacon was primarily concerned about, as showing Christians the way *to sapientia*, was the entire premise of the curriculum he presented to Pope Clement IV in the *Opus Majus*. Bacon was also probably one of the first individuals in Europe to see the potentiality in utilizing alchemy as a means to attain *sapientia* or divine wisdom. Never before in Europe was there a practical, systematic approach to attaining a religious or divine experience; Bacon aimed to provide this to the people of Europe by reforming the current curriculum to include knowledge of alchemy

The aforementioned aspects of Bacon’s life and work under this microscope, provides insight into his reasoning behind his belief that practice of alchemy, that is, the creation of the philosopher’s stone or “elixir of life” would lead humanity to salvation. This also provides significant evidence that the entire foundation of Roger Bacon’s *Opus Majus* was based on the purported “experience” alchemists had through practicing their art. Bacon’s account of alchemy in comparison with the accounts of others throughout history, shows that Bacon’s line of thought was drawn predominately from what came to be known as “Hermetic texts” as well as Arabic alchemical texts. Though shrouded in symbolism and allegories, both of these bodies of literature are primarily focused on the transformation of the spirit. Therefore, since at its core, alchemy dealt primarily with an internal “spiritual purification” of sorts, Bacon believed that Christianity

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<sup>3</sup> DiImperio, M. E. *The Voynich Manuscript: An Elegant Enigma*. Laguna Hills, CA: Aegean Park Press, 1979, 47.

could be “restored” to its intended state so to speak by including knowledge of alchemy in the Christian learning curriculum. Bacon claimed his contemporaries were void of this insight in alchemy and he stated that they were ignorant of its true meaning.

## **Background**

The influx of knowledge from the Muslim world that accumulated in Europe during the 13<sup>th</sup> century as the result of the crusades, influenced the integration of new systems of thought among groups of Christian intellectuals teaching at the newly formed universities of Paris and Oxford. The rise of Aristotelian literature in Europe during the medieval era gave way to an alternative way of thinking because of the way it provoked people to consider reality from a philosophical perspective rather than a completely religious perspective. The bombardment of knowledge from foreigners in conjunction with the dedicated academic pursuits of European intellectuals prompted theological questions among the educated in relation to physical reality and the afterlife. Not only were traditional Greek texts such as Aristotle becoming available to access for the typical medieval scholar, but also a number of Arabic works were being translated into Latin.

One of the prominent groups of people who were crossing paths with these bodies of literature are the members of a mendicant order within the Catholic Church known as the Franciscan Order. These individuals were considered monks who took a vow of poverty and dedicated their lives to solitude and penance.<sup>4</sup> This allowed them to become learned because they spent their time studying; it also aided in establishing an integrated network of grouped intellectuals across Europe. The share and exchange of knowledge between friars was inevitable

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<sup>4</sup> "The Franciscans, Third Order Regular." Franciscan University of Steubenville. Accessed January 27, 2019. <https://www.franciscan.edu/chapel/franciscans-tor/>.

and it expedited the spread of new ideas; which predictably caused unique literature to appear across Europe. One intellectual who joined this order and was greatly influenced in his writings by ideas foreign to Europeans at the time, was a lecturer from the University of Paris known as Roger Bacon (1214-1292).<sup>5</sup> or sometimes known as his byname “Doctor Mirabilis,” Latin for wonderful teacher.<sup>6</sup>

Roger Bacon is estimated to have been born in the year 1214 to a well-off family in England and lived until the year 1292.<sup>7</sup> During his lifetime, Bacon traveled between Paris and Oxford to fulfill his educational desires.<sup>8</sup> He joined the Franciscan Order sometime during the years 1256-7 because he was attracted to the order on behalf of its “philosophical, theological, and scientific” examples of English friars whom he held in high regard.<sup>9</sup> Prior to this however, he lectured on traditional subjects at the University of Paris. Throughout his lifetime, he was responsible for the authorship of many treatises during his time as both a lecturer at the University of Paris as well as his time as a friar. However, his crowning achievement, was the work he undertook for Pope Clement IV in 1267, titled the *Opus Majus* or “Greater Work.” This was a detailed account of the information on various “sciences” that Bacon encountered in his studies throughout his life and career. Bacon broke the work into seven parts: *Causes of Error*, *Philosophy*, *Study of Tongues*, *Mathematics*, *Optical Science*, *Experimental Science*, and *Moral Philosophy*.<sup>10</sup> Bacon believed that a dedicated study to *all* of the knowledge he presented in the

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<sup>5</sup> Antolic-Piper, Pia. "Roger Bacon (1214–1292)." Internet Encyclopedia of Philosophy. Accessed January 27, 2019. <https://www.iep.utm.edu/bacon-ro/#SH1a>

<sup>6</sup> Blish, James, *Doctor Mirabilis* (New York: Dodd, Mead & Company, 1971)

<sup>7</sup> Clegg, Brian, *The First Scientist: A Life of Roger Bacon*, (New York: Carroll & Graf Publishers, 2003), 6

<sup>8</sup> Ibid, 15.

<sup>9</sup> Hackett, Jeremiah. "Roger Bacon." Stanford Encyclopedia of Philosophy. April 19, 2007. Accessed January 27, 2019. <https://plato.stanford.edu/entries/roger-bacon/#LifWor>.

<sup>10</sup> Bacon, *The Opus Majus*.

*Opus Majus*, would clear a path to achieving what he called *sapeinta* or “wisdom” for Christians studying at the universities of Paris and Oxford.<sup>11</sup>

The *Opus Majus* was essentially an academic curriculum that Bacon believed *could* and *should* be implemented as the new way of teaching for all Christians attending the schools of Oxford and Paris. After the *Opus Majus*, in fear that his work may not have made it to the Pope and thinking that perhaps he had left some information too vague, namely alchemy, he sent Clement IV the *Opus Minus*, or “Lesser Work,” and then later sent the *Opus Tertium* or “The Third Task,” making three documents that are all interrelated to each other and according to Bacon, must be considered in their totality in order to comprehend to bigger picture.<sup>12</sup> The entirety of Bacon’s work lies in his proclamation that Christians could attain *sapientia* or “wisdom” through learning the “sciences” in this new curriculum. This massive work of just under a million words, written on parchment with a quill, was composed by Bacon in one year, with limited supplies and done in secrecy as per orders of the Pope.<sup>13</sup> Historians are baffled when considering the conditions under which he was able to complete this extensive compendium of sciences which he had so diligently compiled under immense pressure and pressing limitations. The conditions under which he wrote the *Opus Majus* force anyone to question how such an impossible feat could have been accomplished. The *Opus Majus* can be considered one of the biggest literary accomplishments of all time. Another reason why Bacon’s accomplishment is so astonishing is because he was essentially a nobody when he existed, as “he was of no particular importance to his contemporaries.”<sup>14</sup>

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<sup>11</sup> Antolic-Piper, “Roger Bacon”.

<sup>12</sup> Bacon, *The Opus Majus*, 635.

<sup>13</sup> Clegg, *The First Scientist*, 6.

<sup>14</sup> Easton, Stewart C., *Roger Bacon and His Search for a Universal Science; a Reconsideration of the Life and Work of Roger Bacon in the Light of His Own Stated Purposes* (New York: Russell & Russell, 1971), 68.

As a result of Bacon's travels, he became familiar with the study of nature, medicine, and alchemy. It was from a person whom Bacon had met during his time in Paris named Peter of Maricourt, that Bacon had first learned about the study of these sciences. It can be speculated that Peter of Maricourt is responsible for influencing Bacon's later work in *experimental science* which he first described in the *Opus Majus*. Bacon stated that "He [Peter of Maricourt] gains knowledge of matters of nature, medicine, and alchemy through experiment, and all that is in the heaven and in the earth beneath..." Bacon saw the utility in this "new" kind of science, and he wanted to bring it back to Oxford with him. Bacon refers to Peter as "a master of experiment," and wrote about him in one of his subsequent works to the *Opus Majus*, the *Opus Tertium* which is the third part of the sequential order of works in which he successively presented to Pope Clement IV.<sup>15</sup>

The *Opus Majus* was written for Pope Clement IV after a misunderstanding in which the Pope believed that Bacon had already completed the work. The *Opus Majus* was a plea to reform Christian teachings to incorporate various sciences and other elements that Bacon deemed essential to attaining wisdom. The primary aim of Bacon's *Opus Majus* is as he puts it, to show Christians the way to attain wisdom. Bacon's *Opus Majus* explains that *all* of the parts of the proper attainment of wisdom outlined in the *Opus Majus* are equally important to each other; including alchemy. However, he also refers to alchemy as the core of all the other sciences. "Bacon quotes Aristotle himself in the *Secretum*, "namely, that it would be a break of the celestial seal if he revealed these things to the unworthy. For that reason...[he] divided his discussion of alchemy for the pope into several separate writings."<sup>16</sup> It is obvious that Bacon held

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<sup>15</sup> Clegg, *The First Scientist*, 33.

<sup>16</sup> Williams, Steven J. "Roger Bacon and His Edition of the Pseudo-Aristotelian *Secretum Secretorum*." *Speculum* 69, no. 1 (1994): 57-73. doi:10.2307/2864785, 66.

alchemy in very high regard, this is evident in his assertion that alchemy is essential to the unified science in which wisdom and salvation for mankind was capable of being attained.

After a short time in Paris, Bacon returned to Oxford with a new perspective brought on by the studying he did with Peter of Maricourt. Bacon was “sparked by Peter’s experimental genius, he had a new mission in life.” Bacon returned to England shortly after his encounter, “and as if to underline the rightness of his move, he had recently discovered a secret book that seemed to support his new way of thinking. This book claimed that knowledge of nature, the knowledge that Bacon had so assiduously acquired and now wished to expand, was an essential requirement for the success of princes and powers.”<sup>17</sup> This was in the pseudo-Aristotelian text known as the *Secretum Secretorum*, or “Secret of Secrets” which included clues as to how to obtain the ever-elusive “philosopher’s stone” related to alchemy – something Bacon took a peculiar interest in. The *Secretum* contains a sort of riddle for producing this philosopher’s “egg” or “stone,” which is considered to be the primary and ultimate goal of alchemy. The “riddle” from the *Secretum* says, “Therefore take the animal, vegetable, and mineral stone, which is not a stone, and does not have the nature of a stone...it is found in every place, in every time, and in every man...And I will name it by its own name...that is...the egg of the philosophers.”<sup>18</sup>

Historian Stewart Easton argues in his book that Bacon’s “discovery” of this text inspired him on the same level as when “Descartes spent his sleepless night from which came a vision of analytical geometry, when Rosseau heard that a prize was offered for a composition on the place of science in civilization and sat down and wrote his first book and won it or when St. Augustine heard the child’s voice saying, ‘Take and read!’”<sup>19</sup>. Bacon’s inspiration which stemmed from his

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<sup>17</sup> Clegg, *The First Scientist*, 33.

<sup>18</sup> Hackett, Jeremiah, *Roger Bacon and the Sciences: Commemorative Essays*, New York: Brill, 1997, 329.

<sup>19</sup> Easton, *Roger Bacon*, 86.

encounter with the *Secretum* ultimately led to the evident change in his thought which can be observed when examining earlier works in comparison to later works. Bacon's lifestyle and writings undergo a definitive intellectual shift from the time he began his academic career until the time he died.

Bacon's devotion to delving into the depths of the mysterious sciences presented in the *Secretum* was unwavering during the 20 years between his discovery of the *Secretum* (1247) and the composition of the *Opus Majus* (1267). When Bacon sent his *Opus Majus* to Pope Clement IV in 1267, he explained that for the last 20 years, he had "made a special study of wisdom by unusual paths [and] he has spent more than two thousand pounds for secret books, tables, experiments, etc." the 20 years he spent searching for wisdom "indicate a definite change to a specialized and unusual study about the year 1247." In the 13<sup>th</sup> century, 2000 pounds was a substantial amount of money; it is equivalent to about 3.2 million U.S. dollars today.<sup>20</sup> Easton considers Bacon's discovery of the *Secretum* to be the turning point of his life and that "he [Bacon] probably decided, as soon as he determined on his study of science, to spend this money [2000 pounds] equipping himself with the tools of this new profession."<sup>21</sup> During this time, Bacon also became familiar with Greek, Hebrew, and Arabic;<sup>22</sup> demonstrating the great lengths he went in comprehending texts related to his new pursuit of wisdom. Even some of the individuals who were present around Bacon at this time claimed they were surprised that he hadn't "work[ed] himself into the ground."<sup>23</sup> Through these observations, it is evident that Bacon became quite literally obsessed with this particular pursuit of knowledge he wished to ensue.

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<sup>20</sup> "Pounds Sterling to Dollars: Historical Conversion of Currency." University of Wyoming. Accessed January 27, 2019. <https://www.uwyo.edu/numimage/currency.htm>.

<sup>21</sup> Easton, *Roger Bacon*, 87.

<sup>22</sup> Power, *Roger Bacon*, 47.

<sup>23</sup> Clegg, *The First Scientist*, 38.

Scholar Steven J. Williams pointed out in his article that historians have never fully addressed Roger Bacon's particular interest in the *Secretum*.<sup>24</sup> If Bacon was considering alchemy in its philosophical or spiritual sense, then it would provide clear evidence for the reasoning behind Roger Bacon's adornment for the *Secretum*. Bacon came into contact with the *Secretum Secretorum* or "Secret of Secrets" in 1247 and believed it to be an authentic work of Aristotle. The *Secretum* however, was not written by Aristotle, in fact it was later proved to be an Arabic piece of literature.<sup>25</sup> Bacon was enamored by a piece of literature that would have been considered paganistic had it not been believed that Aristotle was the author. This is significant because as Matus points out, Bacon was "Christianizing" something that came from the *Secretum Secretorum*, which was in reality an Arabic text.<sup>26</sup> This text was written as a supposed letter from Aristotle to Alexander the Great, informing Alexander on the right-doings of everything from the proper governance of peoples to the uses of gems and stones, as well as information on the relevance and importance of astrology, alchemy, and medicine along with stress on the interrelation of all of these subjects.<sup>27</sup>

In his book, Easton suggests that "secret knowledge not possessed by the vulgus, practical knowledge that could be used to shape events, a view of the interrelationship of all the phenomena in the universe which lent intellectual respectability to these secrets...I think, [they] appealed with irresistible force to the visionary in Bacon, and to his own suppressed longing for power."<sup>28</sup> Prior to Bacon's encounter with the *Secretum*, he was a typical mediaeval scholar, who had been "one-sidedly interested in philosophy," and the *Secretum* may have "awakened his

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<sup>24</sup> Williams, "Roger Bacon".

<sup>25</sup> Clegg, *The First Scientist*, 34.

<sup>26</sup> Matus, Zachary A., *Franciscans and the Elixir of Life*, Philadelphia: University of Pennsylvania Press, 2017, 49.

<sup>27</sup> Manzalaoui, M.A., *Secretum Secretorum: Nine English Versions*, Oxford: Oxford University Press, 1977, 32, 64.

<sup>28</sup> Easton, *Roger Bacon*, 81.

dormant sense of wonder.”<sup>29</sup> Easton points out that “we are forced to examine the development of Bacon’s thought, the various subjects on which it was exercised and...his method of working...[to see] how it was ever possible for him to write the *Opus Majus*.”<sup>30</sup> Bacon paid a staggering amount of money to obtain “secret books, tables, [and] experiments,” something which was not easy for him to attain. It is believed by Easton that Bacon may have had to ask his family members to support his research because as a friar, he would have had no money.<sup>31</sup> The speculation can be made that Bacon went to great lengths to acquire more subject material for his “special study of wisdom” on what he calls “unusual paths.”

The presumably complex collection of knowledge he was able to acquire during those 20 years can perhaps be measured by the pure determination and zeal reflected in the manner and circumstances in which he completed the *Opus Majus*. If Bacon was capable of such a feat as the *Opus Majus*, then it is not difficult to imagine what he was able to accomplish as far as research over a 20-year period. Some of these years however, are unaccounted for in the historical timeline of Bacon’s life. It is known that sometime in the late 1240s, (around the time he encountered the Secretum) “Bacon ceased being a Master of Arts at Paris, became an independent scholar, and returned to England. Yet, there is evidence that he was back in Paris in 1251.”<sup>32</sup> As there is weight in silence, this blackout of Bacon’s life on his historical timeline gives us insight into how deep he went to acquire this *sapientia*, because he essentially “went off the grid.”

Bacon’s works in relation to alchemy reflect his belonging to a school of intellectual thought known as Hermeticism; which encompassed the practice of alchemy. Bacon can be

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<sup>29</sup> Ibid, 78.

<sup>30</sup> Ibid, 99.

<sup>31</sup> Ibid, 10.

<sup>32</sup> Hackett, "Roger Bacon".

placed among other philosophic practitioners of alchemy throughout history; allowing for expanded insight into the life of this medieval scholar. Alchemy as a philosophic-spiritual practice was described by Bacon in the segment of his *Opus Majus* titled *Experimental Science*. Although there have been several ways that Bacon's work in this *experimental science* has been interpreted, his work in this subject is related primarily to the "divine" experiences that accompany the practice of alchemy and astrology. The similarities between Bacon's alchemy and that of other prominent intellectuals throughout history demonstrate his deep understanding of Hermetic philosophy, which included the study of alchemy as a philosophic practice. Bacon's significance in history can be revisited and reconsidered, to place him among other intellectuals who also followed this school of thought.

## **Alchemy**

Alchemy, in the modern sense of the word is widely considered to be solely primitive chemistry. However, alchemy has two sides; on the one side, alchemy is indeed chemistry, working with actual substances in a real laboratory performing various experiments. On the other side, there is a much deeper, spiritual force that works within the mind of the alchemist, using their psyche, imagination, and the power of thought to bring about a sort of internal revelation. This spiritual side of alchemy is intricately intertwined with the physical practice of alchemy. An alchemist would practice the "art" of alchemy in hopes to attain its ultimate goal, which was considered to be the attainment of the "philosopher's stone" or the successful transmutation of base metals into gold. This was a metaphor however, for the purpose of alchemy was to provoke the transmutation of the alchemists' base thoughts into higher, more pure thoughts. This was done through their observation of the physical transformation of matter while in solitude and

deep contemplation. Through the relentless, diligent striving towards their goal, alchemists could arrive at a certain “knowing” of universal truths.

The first alchemical text to be translated into Latin was an Arabic text titled, *A Testament of Alchemy: Being the Revelations of Morienus, Ancient Adept and Hermit of Jerusalem, to Khalid Ibn Yazid Ibn Mu'awiyya, King of the Arabs, of the Divine Secrets of the Magisterium and Accomplishment of the Alchemical Art*. This text was introduced into Europe after it was translated in 1144 and consists of a dialogue between the Arabic king, Khalid ibn Yazid and Morienus, a Greek hermit.<sup>33</sup> “As the two individuals begin to discuss the “Superior Work” regarding the attainment of the philosopher’s stone, the spiritual aspects of alchemy become more evident; the stone is given several vague and figurative descriptions.”<sup>34</sup> In this text, Khalid asked Morienus to tell him the secret of the philosopher’s stone because he claimed he had been searching for it, fruitlessly. Khalid said, “O Morienus, know that I have long sought the Superior Work, but found none to counsel me in this matter. Therefore I earnestly request that you prepare for me some portion of your magistracy.”<sup>35</sup> Morienus replied to Khalid saying, You have approached me as an equal in spirit, and now I see by your affection, excellence, and discrimination that...you are indeed a man of good intentions as well as deeds and most virtuous. Very well, you have attained your initiation and instruction simply and with the greatest ease. May the Creator be praised.” Morienus continued to say:

Thus it is only the gift of God, who chooses among his humble and obedient servants those to whom he reveals it...And from among his servants, he chose to select certain

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<sup>33</sup> "Perfecting Nature: Medicine, Metallurgy and Mysticism Islamic Alchemy." University of Delaware Library. Accessed May 08, 2019. <http://www.lib.udel.edu/ud/spec/exhibits/alchemy/ia.html>.

<sup>34</sup> Morienus, Hālid Ibn Yazīd Ibn Mu'āwiyyā, and Lee Stavenhagen. *A Testament of Alchemy Being the Revelation of Morenius, Ancient Adept and Hermit of Jerusalem to Khalid Ibn Yazid Ibn Mu'awiyya, King of the Arabs Ot the Divine Secrets of the Magisterium and Accomplishment of the Alchemical Art*. Hanover (New Hampshire): University Press of New England, 1974.

<sup>35</sup> *Ibid*, 9.

ones to seek after the knowledge he had established that rescues him who masters it from the wretchedness of this world and assures him riches to come, God willing... The ancients, however, did not refer to the matters pertaining to this science by their proper names, speaking instead, as we truly know, in circumlocutions, in order to confute fools in their evil intentions. This they did by formulating their convictions and true sayings in parables, so that only those of great wisdom and resource would be able to uncover their true meaning... those who would learn it [this knowledge] must understand their maxims... [and] must fix their faith in God and persist to the end that he bring them to this knowledge, improve their estate, and give them direct, unerring access to the methods of this science.”<sup>36</sup>

Although Bacon does not exclusively mention this text, one can speculate that he read it because it was well circulated in Europe during the Middle Ages. Another reason one can speculate that Bacon read this text is because his philosophy outlined in the last section of the *Opus Majus*, titled *Moral Philosophy* (which will be discussed later), closely resembles the underlying principles symbolically presented in the dialogue present in *Morienus*. When intellectuals created manuscripts in this era, not every single text was given reference; only texts that were significant or by otherwise well-known authors were mentioned throughout their writings. As a Franciscan, especially one with the inclination towards the intellectual interest of alchemy, Bacon would have been exposed to this text. Like Morienus, Bacon also believed that God only revealed his knowledge to people chosen by him, or as Bacon said, he only revealed it “to the most noted.”<sup>37</sup> The reason this text is significant is because of the way it showcases the spiritual elements of alchemy metaphorically intertwined with the more physical and chemical language that alchemy also encompasses.

According to Arabic sources, alchemy is a means of spiritual purification, as they consider alchemy to be not only chemistry, but more importantly, a *metaphorical* process for the transmutation of lead into gold. A.G. Little says, “I do not think it possible to translate

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<sup>36</sup> Ibid, 11-13.

<sup>37</sup> Bacon, *The Opus Majus*, 619.

alchemical directions for making the Stone into words which convey any definite meaning to a chemist. The terms *Mercury*, *Sulphur*, *Arsenic*, *Gold*, *Silver*, certainly did not mean to alchemists what they now mean to chemists.”<sup>38</sup> “Purification” was the means to the end for the practicing alchemist; just as lead was believed to become gold when it underwent the process of purification, so too did the base thoughts of the alchemist become purified to reflect the nature of gold. For them, the secret of the “philosopher’s stone” is the state of mind that is brought about by the meditation done in solitude; this resulted in spiritual certitude. The inward contemplation and outward observations of nature could bring about a sort of illumination of the mind by arriving at a series of conclusions about the nature of the world. This was the ulterior motive behind practicing alchemists in Arabia whom brought this knowledge to Europeans via the exchange of information during the Middle Ages.<sup>39</sup>

When alchemical texts made their way through Europe, they were initially interpreted in a few different ways. Some believed that the ultimate goal of alchemy was to create a physical, tangible elixir of life that would grant the consumer immortality,<sup>40</sup> while others thought if one perfected the art of alchemy, that they could successfully transmute lead into gold.<sup>41</sup> However, there were other individuals, such as Bacon, who saw the philosophical utility of this “art.” That is, its ability to transform the soul of an individual through spiritual alchemy. His motives behind bringing this knowledge to Christians become clear when considering the fact that he knew about the spiritual side of alchemy, not just the scientific side. Bacon’s interest in the *Secretum* was

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<sup>38</sup> Little, Andrew George, and Roger Bacon. *Roger Bacon Essays: Contributed by Various Writers on the Occasion of the Commemoration of the 7. Centenary of His Birth*. New York, 1972, 299.

<sup>39</sup> Henderson, Joseph L. and Dyane N. Sherwood, *Transformation of the Psyche: The Symbolic Alchemy of the Splendor Solis* (New York, NY: Brunner-Routledge, 2003), 7.

<sup>40</sup> Matus, *Franciscans*, 41.

<sup>41</sup> *Ibid*, 40.

primarily caused by what he believed could be accomplished by an individual who successfully obtained the “philosopher’s stone”.

The main premise of Roger Bacon’s *Opus Majus* was his desire to provide Christians with a systematic way of achieving what he believed to be a “universal wisdom.” This idea is derived from the *Secretum*,<sup>42</sup> and Bacon states that there is a universal science or wisdom that can be attained by any person who makes a study of occult (hidden) knowledge but that most people overlook its utility and significance. He placed emphasis on his resentment towards the lack of attention paid by the majority of people to this “occult” science.<sup>43</sup> Bacon explained this when he said, “How many secrets and how much occult knowledge of universal things and their details do men pass by, and they are not known because their minds are turned to other things and their objectives are different!”<sup>44</sup> Bacon wished to prove that by making a specific study in the areas of knowledge he explored, another individual could arrive at *sapientia*. Bacon claimed that only through experience a thing could be known, therefore it can be concluded that Bacon must have experienced what he called *sapientia*. Otherwise, he would not have been so sure of himself and would not have urgingly professed its tangibility to Pope Clement IV. Bacon claimed that the attainment of *sapientia* could be reached by an individual with an honest intellectual pursuit of wisdom through the diligent study of philosophy and the sciences. He also believed that this level of wisdom was universal to all of humankind, as he says:

...this way which preceded revelation is the wisdom of philosophy, and this wisdom alone is in the power of man, yet supplemented by some divine enlightenment which in this part is common to all; because God is the intelligence active in our souls in all cognition...And it is not surprising that the wisdom of philosophy is of this kind since this wisdom is only a general revelation made to all mankind because all wisdom is from God.<sup>45</sup>

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<sup>42</sup> Easton, *Roger Bacon*, 77.

<sup>43</sup> Bacon, *The Opus Majus*, 619.

<sup>44</sup> Easton, *Roger Bacon*, 82.

<sup>45</sup> *Ibid*, 75.

Alchemy was obviously of the utmost importance to Bacon, as he stressed its relevance in the works he sent to Pope Clement IV. He also went through extended efforts to be sure that the Pope properly understood his message about this science; which is why he created the *Opus Minus* and *Opus Tertium*. In his book, Matus says, “one of the reasons Bacon felt the need to create the *Opus Minus* and *Opus Tertium* was his evolving notion of alchemy.”<sup>46</sup> Bacon claimed that alchemy was the progenitor of all the other sciences; that all other sciences owed their origin to it. Bacon says this science is “the lord of all sciences, and the end of all speculation,” thus deeming it central to the attainment of *sapientia*, proving just how essential he considered it to be.<sup>47</sup> By Bacon’s actions and his own words, it can be concluded that alchemy was the most important element of the *Opus Majus*.

In the *Opus Majus* along with its companion works, Bacon specifically stresses the importance of alchemy and also astrology even going so far as to stating that these things will be the only viable defense against the coming Anti-Christ because he stated that the Anti-Christ will use these “sciences” against the population in the form of “fascination.” This so-called fascination was considered to be “a kind of allurement based on changing the essential nature of a person or people.” He believed that Christians needed to be equipped with knowledge of the occult in order to properly defend themselves against the enchantment of “fascination” by the magically inclined Anti-Christ. Bacon believed that the Anti-Christ would “capitalize on the hidden powers in nature,” with his vast knowledge of occult sciences which included alchemy and astrology.<sup>48</sup> When looking at it through this perspective, Bacon’s intentions for the salvation

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<sup>46</sup> Matus, *Franciscans*, 43.

<sup>47</sup> Little, A.G., *Roger Bacon: Commemoration Essays*, Oxford: The Clarendon Press, 1914, 302.

<sup>48</sup> Matus, *Franciscans*, 77.

of Christians become clearer. If Bacon could acquire this lasting divine wisdom, then others could, and in Bacon's eyes, this would provide them with the necessary equipment to defend themselves against the Anti-Christ. If the Anti-Christ came, and executed the means of "fascination" on the Christians that Bacon talks about, they would not be fascinated because they would be able to presumably see through the veil of this "fascination". In Bacon's eyes they would be "saved" by God regardless of what the Anti-Christ did.<sup>49</sup> This also fits in with Bacon's claim that Christians wouldn't even need weapons because their wisdom alone would be sufficient enough for protection.<sup>50</sup>

Bacon took great care to conceal the secrets of alchemy, he feared that his writings about alchemy would fall into the wrong hands, demonstrating just how powerful Bacon believed the secrets of alchemy to be. Bacon references the *Secretum* in relation to the way that the mysteries and secrets of nature have been veiled from the multitude by the wise since the beginning of time. He wrote, "Aristotle also says in his book of Secrets that he would break the celestial seal if he made public the secrets of nature," indicating that the masses were not capable of receiving such knowledge about the secrets of nature, that is, gaining possession of the philosopher's stone. He mentions the fact that the wise have always went put themselves through extended efforts to hide secret knowledge from the masses and that even in Greece, learned Athenians met "during the watches of the night in order to avoid the multitude."<sup>51</sup> Also, Bacon must have undoubtedly feared being found out; after all, he wrote the *Opus Majus* in secret by request of the pope. Most of Europe was being dominated by the Church of Rome, and "an open inquiry into the nature of matter and the nature of inner experience was an activity that could lead to a

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<sup>49</sup> Ibid, 85.

<sup>50</sup> Power, *Roger Bacon*, 202-04.

<sup>51</sup> Bacon, *The Opus Majus*, 11.

summons from the Inquisition, followed by torture, imprisonment, and even death.”<sup>52</sup> For this reason, Bacon gave verbal instructions to his aide, John, “from whom the pope can have this knowledge transcribed.” In addition to this verbal instruction, there were “two other sections Bacon had written obscurely, one in code (enigmatas) and the other in philosophical language so that a reader would assume Bacon was discussing medicine or natural philosophy rather than alchemy.”<sup>53</sup> This fact about Bacon’s writings on alchemy, prove that he believed he found something profound in the practice of alchemy; something which he believed could change the face of Christianity for the better. The ends to which were met with alchemy were believed by Bacon to be of extreme importance. Or in other words, for Bacon, the acquisition of the philosopher’s stone was the key to unlocking the secrets of art and nature.

## **Experimental Science**

Roger Bacon concluded that there were two sides to alchemy, which he discerns as operative and speculative alchemy. The first being the work involved in chemistry, and the latter, the spiritual transformative side of alchemy. This division in alchemy was not fully expressed in the *Opus Majus*. In his book, *Franciscans and the Elixir of Life*, author Zachary Matus writes that in the *Opus Majus*, “Bacon had yet to align the practice of alchemy with what he called *scientia experimentalis*, troublingly translated with the cognate *experimental science*.” Bacon’s conveyance of knowledge about alchemy to Pope Clement IV occurred in a progression, it was first only briefly mentioned under the title “alchemy” in his *Opus Majus*, however it was in the segment titled “*experimental science*” where Bacon discussed the philosophical implications of alchemy but without mentioning alchemy per se. Hackett says that Bacon’s *experimental science*

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<sup>52</sup> Henderson and Sherwood, *Transformation of the Psyche*, 14.

<sup>53</sup> Matus, *Franciscans*, 42.

had nothing to do with experiment, but rather, with experience. He also says that Bacon's *scientia experimentalis* was predominantly dedicated to alchemy, as "Bacon placed occult science at the center of his experimental method."<sup>54</sup>

In the *Tertium*, Bacon had divided alchemy into what he called "speculative" alchemy and "operative" alchemy. Of this, Matus says, "Operative alchemy was practiced, but not (fully) theorized. Operative alchemists could be skilled practitioners, but they did not comprehend the primary goal (*finem principalem*) of alchemy." The other side of alchemy, that is, speculative alchemy was according to Bacon, understood by few. Matus continues to say "speculative alchemists, of whom Bacon said there were but a handful, understood the uses to which alchemy could be put in regard both to inanimate matter...but also to animate or living matter."

According to this, the assertion can be made that Bacon understood that there were two very different sides to alchemy, but it wasn't until he wrote the *Opus Tertium* that Bacon made the distinction between physical alchemy (chemistry) and the philosophical side of alchemy. The philosophical aspects of Bacon's speculative alchemy are prevalent in the language he uses when describing this science. Bacon says that the study of wisdom, "has two parts, one speculative, and the other practical and operative." He stated that alchemy was part speculative and part practical, showing that there were two ways to practice alchemy.

Bacon says that people have not paid attention to these alchemical "regimens" and doctors have paid them no mind because the remedies have been hidden not only from physicians but from scientists as well. He says that these remedies have been revealed "only to the most noted."<sup>55</sup> However, the "elixir of life," for Bacon, is something much more than simply

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<sup>54</sup> Hackett, *Roger Bacon*, 280-1.

<sup>55</sup> Bacon, *The Opus Majus*, 619.

a regimen. Bacon claims that if the elixir can be made, then “it is evident that all other things are possible, namely that man might reach great foresight and perfect wisdom that he may know how to rule himself and others, with the help of the grace of God.” For Bacon, production of the elixir required not only physical ingredients but also “celestial ingredients, which would only be accessible to those trained in astrology and *scientia experimentalis*.” or *experimental science*. This science was, according to Bacon, “wholly unknown to the rank and file of university Students.”<sup>56</sup> Bacon said that without experience, “no satisfactory investigation is possible. [and that] Experience shields us from erroneous judgements.” According to Bacon, the discoveries he had personally made through experimenting and observing, “had shown him, he says, that there is nothing too hard to believe either in human or divine things.”<sup>57</sup>

Roger Bacon has been accredited to laying the groundwork for experimental science as we know it; that is, knowing things by way of experiment or what is commonly referred to as the “scientific method.” However, it appears as though Bacon’s ideas about “experimental science” have been misinterpreted, or rather, secularized. What Bacon says about experimental science pertains to divine illumination or inspiration by way of spiritual alchemy and not experimental science in the modern sense of the term. Bacon claims that *experimental science* could bring about an experience that would allow a person to arrive at “truths” pertaining to existence. Bacon says that there are two different kinds of experience, the first one happens “through the external senses such are the experiments that are made upon the heaven through instruments in regard to facts there, and the facts on earth that we prove in various ways to be certain in our own sight.” However, Bacon claims that this external knowledge is not enough. He states that “this experience is human and philosophical...but such experience is not enough for man, because it

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<sup>56</sup> Hackett, *Roger Bacon*, 294.

<sup>57</sup> Little, *Roger Bacon Essays*, 305.

does not give full certainty as regards corporeal things because of their complexity and touches the spiritual not at all. Hence man's intellect must be aided in another way...”

The experience described in *Experimental Science* is an inner experience to which Bacon says there are seven degrees, “one through spiritual illumination in regard to scientific things,” and another, pertains to virtue. In pertinence to the importance of virtue in relation to *experimental science*, Bacon quoted Aristotle and stated “for evil is ignorance”; he then goes on to quote Arabic author Al-Ghazali, or as Bacon refers to him, Algazel. Bacon stated that Algazel “says in the logic that the mind is disturbed by faults, just as a rusty mirror in which the images of things cannot be clearly seen, but the mind is prepared by virtue like a well polished mirror in which the images of things show clearly. On account of this, true philosophers have accomplished more in ethics in proportion to the soundness of their virtue.” This is why it is necessary for an individual to undergo the “purification” process described in Arabic alchemy before it is ready to receive “truths”. Bacon explains this when he further states that: “it is impossible that the mind should lie calm in the sunlight of truth while it is spotted with evil... Virtue, then, clears the mind so that one can better understand not only ethical, but even scientific things.”<sup>58</sup> Roger Bacon’s claim that there were *seven* stages of illumination is understandable because seven is often associated with the completion of a cycle, such as the seven days of the week and “the alchemical opus was often described as having seven stages.”<sup>59</sup>

After describing the alchemical priming process that the mind must undergo before it is able to arrive at spiritual truths, Bacon continues to describe the other degrees of spiritual illumination claiming that the final degree of spiritual illumination results in revealed truth, and

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<sup>58</sup> Oliver J. Thatcher, ed., *The Library of Original Sources* (Milwaukee: University Research Extension Co., 1901), Vol. V: The Early Medieval World, pp. 369-376.

<sup>59</sup> Henderson and Sherwood, *Transformation of the Psyche*, 46.

that it is a direct result of the practice of *experimental science*. Bacon says that the “seventh lies in states of rapture and in the methods of those also, various ones of whom receive it in various ways, that they may see many things which it is not permitted to speak of to man.” Bacon continues to say that anyone who is experienced in these degrees of illumination possesses the capacity to convey this knowledge to others. He says that, “whoever is thoroughly practiced in these experiences or in many of them, is able to assure himself and others, not only concerning spiritual things, but all human knowledge. He says, “in accordance with this which I am now investigating, there is a science that is necessary to us, which is called experimental.” Bacon deems this science necessary to understanding the other sciences when he wrote, “I wish to explain this, not only as useful to philosophy, but to the knowledge of God and the understanding of the whole world: as in a former book I followed language and science to their end, which is the Divine wisdom by which all things are ordered.”<sup>60</sup>. For Bacon, *sapientia* was the wisdom attained when an individual reached an inward state of moral perfection that reflected the morality and virtue of God. This is why the practice and study of alchemy or “experimental science” were so central to Bacon’s ideas in the *Opus Majus*. Bacon wanted these ideas to be integrated into Christian learning curriculum because of the implications on society that he believed they would have.

Bacon believed that by way of *experimental science*, the secret of secrets had the potential to be discovered. This can be observed when he says, “. . .in regard to this we must strive, that the wonderful and ineffable utility and splendor of *experimental science* may appear, and the pathway may be opened to the greatest secret of secrets, which Aristotle has hidden in

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<sup>60</sup> "Medieval Sourcebook: Roger Bacon: On Experimental Science, 1268." Internet History Sourcebooks. Accessed January 27, 2019. <https://sourcebooks.fordham.edu/source/bacon2.asp>.

his book on the Regimen of Life.”<sup>61</sup> Bacon is referring to the philosopher’s stone, as the “secret of secrets” *is* the philosopher’s stone. When observing what Bacon has to say pertaining to *experimental science* through the lens of spiritual alchemy, it becomes evident that he wished to incorporate the philosophical teachings of alchemy into the Christian learning curriculum because he believed that when practiced along with the study of the sciences he outlined in the *Opus Majus*, it would facilitate a spiritual experience in the practitioner. Although Bacon was a physical alchemist, that is, an operative alchemist, he was more primarily concerned with the philosophic side of alchemy, or as he deemed it, speculative alchemy. This is evidenced by his remarks pertaining to his description of “experimental science.” Bacon’s belief that obtaining the philosopher’s stone or successfully creating the elixir of life would be a sort of “cure-all” for humanity proves that he studied alchemy for the sake of its philosophic utility.

In essence, *experimental science* was Bacon’s attempt in describing to Pope Clement IV the implications that practicing what he called “speculative alchemy” would have if it were included in the Christian learning curriculum at the universities of Paris and Oxford. Bacon’s ideas regarding what we might call a religious or mystical experience were derivative of his studies in what later came to be considered as Hermetic literature. As previously pointed out by Hackett, Bacon placed the “occult sciences’ at the center of *Experimental Science*.<sup>62</sup> Bacon arrived at these conclusions as the direct result of his initial encounter with Hermetic philosophy, namely, alchemy, at first in Paris with Peter of Maricourt, then coincidentally through his acquaintance with the *Secretum Secretorum* upon his return to Oxford. Bacon described this experience in *Experimental Science* as his “seven degrees of illumination,” the seventh degree

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<sup>61</sup> Bacon, *The Opus Majus*, 618.

<sup>62</sup> Hackett, *Roger Bacon*, 280-1.

being “states of rapture” which he considered to be “unspeakable by man.” According to Bacon, the practice of experimental science would allow its practitioner to gain an experience which granted a spiritual connection between the soul and its inherent oneness or interrelated essence with nature.

## Hermeticism

In order to arrive at a full comprehension of alchemy, and successfully navigate the division between physical alchemy and its philosophic counterpart, it is important to explore the school of thought that it derives from; Hermeticism. The name “Hermeticism” has its origins in the name of its supposed creator; an individual known as “Hermes Trismegistus,” who was a fictional character. “The figure of this legendary Egyptian sage arose from the merging of two deities of highly divergent origin: the Egyptian god Thoth and the Greek Hermes.”<sup>63</sup> Throughout history, Hermes Trismegistus has been given credit by some for the creation of a text known as the *Corpus Hermeticum*. This is a series of texts, more than likely written by a collection of individuals around the years 100-300.<sup>64</sup> Author of *Giordano Bruno and the Hermetic Tradition*, Frances A. Yates, describes Hermeticism stating, “The Hermetic science *par excellence* is alchemy; the famous *Emerald Table*, the bible of the alchemists, is attributed to Hermes Trismegistus and gives in a mysteriously compact form the philosophy of the All and the One.”<sup>65</sup> .In *The Secret History of Hermes Trismegistus*, author David Lorton “defines” Hermeticism as follows:

The History of Hermeticism, which begins in antiquity, has yet to come to an end...At close examination, the concept of ‘Hermeticism’ seems to elude comprehension. Many

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<sup>63</sup> Ebeling, Florian, and David Lorton. *The Secret History of Hermes Trismegistus: Hermeticism from Ancient to Modern times*. Ithaca, NY: Cornell Univ. Press, 2011, 3.

<sup>64</sup> Mead, G. R. S., Hermes Trismegistus. *Corpus Hermeticum*, Renaissance Classics, 2012, 7.

<sup>65</sup> Yates, Frances A. *Giordano Bruno and the Hermetic Tradition*. London: Routledge, 2001, 150.

writers understand it as the history of alchemy or as various historical expressions of thinking by analogy; others consider that the term refers to the use made of the tractates of the *Corpus Hermeticum*. . . for many, it is simply a synonym for esotericism, magic, and occultism. Others see Hermeticism as an anthropological constant that emerged with anthropogenesis, whereas still others hold it to be the fundamental spiritual matrix of our time.<sup>66</sup>

The experience in Bacon's *Experimental Science* refers to the "experience" that is brought on by the philosophical practice of alchemy. There seems to be no adequate language or use thereof that exists to describe this alchemical experience because it does not have its origin in the physical realm. Lorton wrote how Hermes' knowledge of God could not be expressed in words saying, "spirit can understand God and his perfect truth by beholding him but cannot express him in words. . . The ensuing mystical vision of the disciple and the teacher, not in terms of its content, '[f]or it is right before God that we be silent about that which is hidden.'" <sup>67</sup> This can be compared to trying to explain colors to a person who has been blind all their life. This is because there is no reference point for the individual trying to explain them because colors cannot be described, they can only be seen. The revelations granted to individuals in pursuit of Hermetic wisdom are the same way. They are things that cannot be described because like colors, there are no words to sufficiently describe them. This "experience" was described by Bacon in *Experimental Science* as being necessary for the full comprehension of nature and also being a sort of prerequisite for the attainment of the philosopher's stone. He also stated that an individual should not dismiss this experience as being untrue just because he himself has not experienced it. He said that individuals had to take either the word of others who either experienced it themselves or who have studied it closely. <sup>68</sup>

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<sup>66</sup> Ebeling and Lorton, *The Secret History*, 1.

<sup>67</sup> *Ibid*, 16-7.

<sup>68</sup> Hackett, *Roger Bacon*, 294.

The effect that the practice of philosophic alchemy or “Hermeticism” had on Roger Bacon can be strongly observed in the last section of the *Opus Majus*, titled *Moral Philosophy*. It is here that Bacon explicitly mentions the “purification” process of alchemy in terms of perfecting morality and quelling one’s inclination towards their personal vices. In actuality, Bacon was giving us an inside look into the spiritual transformation of alchemy, though it isn’t clearly expressed this way. He claims that through a mix of solitude, meditation, and intuition, an individual could be granted revelations pertaining to truths that regard the eventual attainment of *sapientia*, which coincided with the perfection of morality. Bacon considered this to be essential to the process of enlightenment because he believed that through acting “Christ-like” an individual would himself become Christ, while at the same time rendering him the status of a god.

This philosophy of one likeness being attracted to another likeness is a familiar theme in Hermeticism; the philosophic intellectual “religion” that houses the practice of alchemy. Multiple times throughout Bacon’s writing, he mentions the so-called founder of this philosophy, who is called “Hermes Trismegistus.”<sup>69</sup> It becomes evident that Bacon was an ardent scholar in the Hermetic philosophy; this is predictable as the popularly known *Emerald Table* of Hermes was included in the *Secretum Secretorum*.<sup>70</sup> Bacon says that “a man cannot know the causes of things except in the divine light,” and that divine wisdom was essentially the wisdom of philosophy. He says that philosophers have been enlightened by God and given this wisdom, which is universal in nature. Bacon goes on to say that the ultimate aim of philosophy is so that “the Creator may be known through the knowledge of the creature...to whom service may be

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<sup>69</sup> Bacon, *The Opus Majus*, 648, 646, 655.

<sup>70</sup> Williams, J.S., *Esoteric Science: Volume 1*, 2012, 195.

rendered... in the beauty of morals.”<sup>71</sup> It is clear that Bacon’s philosophy is completely based on his belief that the perfection of morals would lead to enlightenment, which was the entire basis for the practice of alchemy in the Islamic world, as well as underlying tone of Hermetic philosophy in general. Bacon mentions Hermes Trismegistus’ dialogue with Asclepius, showing that he was familiar with this Hermetic piece of literature. In this text, Hermes tells Asclepius about the nature of God in relation to mankind and the cosmos. Hermes proclaims to Asclepius that by imitating the goodness of God, an individual would render himself god-like which can be simplified to mankind’s possession of the divine spark, granting him the ability to essentially “become a god” through the perfection of morals.<sup>72</sup> Bacon was undoubtedly familiar with this text as he cites it in his writing.<sup>73</sup>

The significance of understanding Hermeticism lies in Roger Bacon’s familiarity with Hermes Trismegistus, the so-called “father” of alchemy; this becomes evident in his *Moral Philosophy*. The language and ideas of Bacon’s *Moral Philosophy* reflect the core teachings of the *Corpus Hermeticum*. The concepts and beliefs in the *Corpus Hermeticum* pertain to the attainment of a mystical experience through a man’s individual relationship with nature. This is metaphorically described as a sort of celestial ascension or journey coupled with the influence of the planetary spheres. According to these texts, it is “man’s task to recognize his nature as a spiritual-corporeal creature and to conduct himself accordingly. If he recognizes that he owes his essence, his spiritual nature, to his transcendent creator... he can leave the corporeal behind.” This means that through an individual’s conscientious efforts to mentally invert themselves, they could reach a state of enlightenment or obtain the “philosopher’s stone.” The individual would

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<sup>71</sup>Bacon, *The Opus Majus*, 48, 49.

<sup>72</sup> Mead, *Corpus Hermeticum*, 25-6.

<sup>73</sup> Bacon, *The Opus Majus*, 646.

“ascend through the celestial harmonies and return the lower parts of the soul to the seven planetary spheres and enter the eighth, where he will sing the praises of God and finally merge with God himself.”<sup>74</sup>

This spiritual-metaphysic merge or union with the godhead which is symbolically identified as a journey, was described in Roger Bacon’s *Moral Philosophy*. He also references the *Corpus Hermeticum*; however, he refers to this text as “Hermes Mercurius’ *Divine Nature*.”<sup>75</sup> The specific text Bacon is likely to be referring to is Hermes Mercurius Trismegistus’ *Divine Pymander*. In this text, the “Third Book [or] The Holy Sermon” opens with the following, “THE glory of all things, God, and that which is Divine, and the *Divine Nature*, the beginning of things that are.” Bacon’s direct reference to “Hermes Mercurius’ *Divine Nature* or *Divine Pymander*, demonstrates the influence that Hermetic philosophy had in Bacon’s writing.” The ideas in Bacon’s *Moral Philosophy* closely resemble the underlying principles prevalent in the *Corpus Hermeticum* as well as encompass beliefs and core values of what later came to be considered Hermeticism as a whole.

The most significant reference of Hermes’ *Divine Nature* in Bacon’s *Moral Philosophy* came when he quoted the “second book on the Divine Nature.” Bacon wrote quoting, “The best and likewise the most sacred, the most pure and pious worship of God is for us to reverence him always with a pure, blameless, unpolluted mind and voice.” This idea pertaining to purity of mind is the main premise of the second book of the *Divine Pymander*. This portion of the text is written primarily as a dialogue between an individual who is referred to as Poemandres and Hermes Trismegistus. Poemandres considers himself to be the “Mind of all-masterhood.” And

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<sup>74</sup> Ebeling and Lorton, *The Secret History*, 13.

<sup>75</sup> Bacon, *The Opus Majus*, 649.

states that he “know[s] what thou desirest,” and that he is “with thee everywhere.”<sup>76</sup> Poemandres explains to Hermes Trismegistus the process by which an individual may come to know God. This is done by a sort of purification of the thoughts in the mind. The reason this is significant to this paper is because this is where Poemandres uses alchemical language to describe the purification process of the mind through directed thoughts. Air, water, earth, and fire are mentioned in pertinence to the creation of the world and then are symbolically ascribed to corresponding rearrangements of so-called “elements” in the mind. For example, line seventeen of the second book states, “And the Earth and the Water were separated, either from the other, as the *Mind* would; and the Earth brought forth from herself, such living creatures as she had, four-footed and creeping beasts, wild and tame.”<sup>77</sup> Mind constitutes as the entirety of the preeminent focus in Hermetic literature, making the ultimate goal, a sort of internal transformation of the mind or *rebirth* so to speak.

Bacon’s *Moral Philosophy* reflects the philosophy presented in the second book of the *Divine Pymander* and clearly, Bacon must have taken into consideration the alchemical language used in this text. This is because in the *Divine Pymander*, it serves as the primary metaphor for the “purification” of the mind or what can more easily be identified as enlightenment. In his *Moral Philosophy*, Bacon’s language and ideas reflect the Hermetic philosophy in several ways. Bacon strongly believes that the level of a person’s virtue is the gauge that is used to determine whether they will be granted certain revelations or knowledge from God. Bacon described this process in his *experimental science* as the upward trajectory of the “seven stages of illumination.” Through alchemy, the reflection of the divinity in nature could be recognized

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<sup>76</sup> Mead, *Corpus Hermeticum*, 9.

<sup>77</sup> Hermes, and John Everard. *Hermes Mercurius Trismegistus, His Divine Pymander, in Seventeen Books. Together with His Second Book, Called Asclepius ; Containing Fifteen Chapters, with a Commentary. Translated ... out of the Original into English.* London, Printed by J.S. for T. Brewster, 1657.

within the individual themselves through introspection. According to Bacon, if an individual makes the quest for knowledge, they will be granted revelations equal to the level of perfection in their virtues. This level of virtue coincided with the revealed knowledge in the form of an inward knowing of spiritual truths and the individual was able to use this knowledge to progress to the next stage of purification where they would be revealed more knowledge. Thus, “the whole point of the classical alchemical myth...[was that] The adept has to be morally worthy; [and] his magisterium only witnesses the degree of refinement in virtue he has personally attained.”<sup>78</sup> As Bacon, in his *Letter*, described, “Aristotle would have it in the *Book of Secrets*, the healthy and good intellect avails of everything necessary to man, albeit with the aid of divine virtue.”<sup>79</sup>

In Hermeticism, this “quest” was a metaphoric journey for an individual discovering the interrelation between mind and matter in nature – which is what Bacon was attempting to disseminate to the pope in his works. This idea of spirit in nature can also be found when observing the life of Francis of Assisi (1182-1226), “who lived as an ascetic in a cave and expressed his awe of nature in his ‘Canticle of the Sun.’”<sup>80</sup> Considering the fact that it is unclear as to why Bacon had joined the Franciscan Order, this may allude to one of the underlying motives Bacon had in joining the order. At some point during 1240’s (which is when he “discovered the Secretum), Bacon decided to join the Franciscan Order, “for reasons he never discusses in his works.”<sup>81</sup>

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<sup>78</sup> Morienus, *A Testament of Alchemy*, 67.

<sup>79</sup> "Roger Bacon, On Secret Works." Princeton University. Accessed May 08, 2019. <https://www.princeton.edu/~hos/h392/bacon.html>.

<sup>80</sup> Henderson and Sherwood, *Transformation of the Psyche*, 21.

<sup>81</sup> DImperio, *The Voynich Manuscript*, 48.

Perhaps like Francis, Bacon also experienced a similar connection to nature, though Bacon's was the result of his practice of speculative alchemy which led to the experience he described in *Experimental Science*. This experience is summed up in his section, *Moral Philosophy*. The last few of sentences from *Moral Philosophy*, and being that it is the last section, it is also the last few of sentences of the *Opus Majus*, serves as the pinnacle to the premise behind the entire motive of Roger Bacon's composition of the *Opus Majus*. The sentences are:

“Then from participation in God and Christ we become one with him and one with Christ and are gods...because from participation in the Deity many become gods, although he is one by nature. And therefore by participation in Christ we become Christ's. And for this reason the Scripture says, ‘I have said, ye are gods’: and elsewhere, ‘Do not touch my Christs.’ And what more can a man seek in this life?”<sup>82</sup>

What Roger Bacon is saying is that through acting like God, that is, in virtue, an individual, by nature, could elevate themselves to an inner state of mind or being that is equivalent to that of God. Bacon also uses this claim to provide context to the Bible because according to him this is evidence that, like the Hermetic doctrine, the Scripture *also* states that all of mankind has the potential to become God. While “Hermes Trismegistus said that man is of such a kind that he is higher than the inhabitants of heaven, or at least possessing with them an equal fate,”<sup>83</sup> the Bible states that, “ye are gods.” Bacon was proving to Pope Clement IV, that by way of some sort of intuitional, inward, mental journey, an individual could align themselves to the level of virtue prevalent in God; thereby granting themselves the status of being a god. Bacon considers this to be the meaning to life, to be the only goal an individual should set forth for themselves. Bacon is proclaiming that through meditation performed in solitude, an

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<sup>82</sup> Bacon, *The Opus Majus*, 822-23.

<sup>83</sup> Yates, *Giordano Bruno*, 282.

individual could progress through the “seven stages of illumination” to reach a state of enlightenment that entails the knowledge of God. The very last sentence of the *Opus Majus*, which is a question, “And what more can a man seek in this life?” is a statement that essentially says that there is no other purpose in life but to attain this godlike mentality through purification or the perfection of morals. This is why Bacon believed alchemy to be the most important of all the sciences outlined in the *Opus Majus*.<sup>84</sup>

Bacon also expresses this idea in his *Moral Philosophy* as man’s “union” with the soul thus resulting in the realization of immortality in the soul; which is the ultimate end goal of the practice of spiritual alchemy symbolically expressed as the attainment of the “philosopher’s stone” or the “elixir of life.” Bacon says that the immortality of the soul is “touched upon in metaphysics” however he says that in this instance he wishes to mention it in regard to morals, “particularly in reference to the resurrection of the body.” Bacon again refers to Hermes Mercurius’ *Divine Nature*, this time in pertinence to revealed wisdom from God in relation to a man’s mortal union with his soul, which according to Bacon, resulted in the unified realization between man and his soul of their coinciding immortality. Bacon said:

...in his book on the Divine Nature, Hermes Mercurius beautifully says, “The God and father of all and lord, and he who alone is in all, gladly reveals himself; not, however, as regards to his locality nor quality nor quantity; but the intelligence alone of the mind illuminates the man who, with the darkness of error dispersed and the brightness of truth perceived, identifies himself with a full sense of the divine intelligence. Freed by his love

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<sup>84</sup> It is important to note that Bacon’s final words in the *Opus Majus* are similar in nature to the final words of a text written by Avicenna. Bacon frequently references this text throughout the section, *Moral Philosophy*. Avicenna was not particularly known for works regarding alchemy, however, at the time, the alchemical text titled, *De Anima*, was thought to have been written by Avicenna. *De Anima* reflects traditional Jābirian alchemical elements which describes the process of making the philosopher’s stone or, the elixir of life. This caused Bacon to attribute spiritual alchemical literature to Avicenna, which caused some of his alchemical influence to be Pseudo-Avicennan.

of this from the share of nature in which he is mortal he conceives a confident belief in a future immortality.”<sup>85</sup>

Bacon then goes on to proclaim that since the beginning of time, philosophy has always indicated that virtue belongs to the union formed out of soul and body, meaning that perfection of virtue and felicity or “intense happiness,” is attainable to man through the soul via “understanding and building.” Bacon said that the essence of man is formed of soul and body but “his essence is not soul alone in a body,” mentioning that the noble essence of man is the combination of the characteristic elements of the soul (felicity and virtue) and the natural desire of the body (which being material, was capable of manifesting matter’s desire to be perfected). Both were joined together to create what is known as man and not just the infliction of one into the other. Bacon says that it is the soul that is responsible for man’s desire to attain virtue and experience spiritual felicity; however, this desire does not belong to the soul, but rather to man, because man is composed of matter. In regard to this Bacon wrote, “And although spiritual felicity and virtue are in man by reason of his soul, yet they do not belong to the soul, so that they have their place there, but they are in man because of the united man himself;” Bacon continues on to say that this underlying desire for man to achieve spiritual felicity and virtue is the result of the unique union between man and his soul, something other creatures do not possess. According to Bacon, man has an innate desire to achieve “perfection” stating, “therefore they [philosophers] have maintained that felicity which is man’s goal, completes the whole man, both as respects the body, as due to it, and as respects the soul. And therefore they have maintained that the body is at length united with the soul, so that both may be perfected in accordance with its special character.” Bacon claimed that desire to perfect form was only present in matter, which in this instance Bacon means man’s physical body. Therefore, he

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<sup>85</sup> Bacon, *The Opus Majus*, 648, 649.

claimed, incorruptible form or “soul” was united with incorruptible man to reach perfection. According to Bacon, this perfection of the soul is only possible through matter, or man, because only matter possesses the innate desire to achieve perfection. It is through the soul’s felicity and virtue that man possesses an inkling that there is a natural underlying state of perfection attainable in the mind. Bacon says, “And therefore incorruptible form appropriates incorruptible matter, and contrariwise. For they knew that the desire of form is not satisfied except in its own matter. And they have assumed that the desire of the soul is wholly satisfied by felicity. Wherefore they have assumed that it would be in a body.”<sup>86</sup> According to Bacon and other Hermetic philosophers throughout history, this inner mental or spiritual movement towards perfection reflects *natures* innate desire to achieve perfection, since mankind was part of nature. “It is evident, the alchemists argued, that nature aims at perfection. To attain to perfection is to find rest, repose, immutability.”<sup>87</sup> This is the reason why Bacon believed that the only goal that an individual should set out to achieve is that of becoming “Christ-like.”

According to Bacon, since the soul was embodied in man, or nature, it thus had the ability to perfect itself, or to become Christ-like, something otherwise not possible without inhabiting itself in a mortal body. Bacon claims that the soul in man has forgotten itself because it began to pay too much attention to the body, that is to the physical passions and vices of mortal man. This has caused the soul to “forget itself and that which it ought to love,” because the “body seizes onto the substance of the soul and makes it foolish, and causes it to forget its natural longing and search for the perfection that befits it, and its perception of the delight of its own perfection.” Bacon says that the reason for this is not because the soul has been impressed

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<sup>86</sup> Ibid, 650

<sup>87</sup> Little, *Roger Bacon Essays*, 291.

on the body and immersed in it; but because there is a bond between these two,” which causes, “a natural desire [for the soul] to direct the body and to excite its affections.”<sup>88</sup> Therefore, according to Bacon, the purpose of man’s body was to create a vessel for unification with the soul which would allow the soul to achieve perfection, thus granting itself knowledge of its own immortal nature while in a mortal state, that is, through the body of man. This, according to Bacon, was an individual’s ultimate lifetime goal as a soul temporarily intertwined with a mortal body. For Bacon, it is through the darkness of the search for the light that mankind was able to achieve immortal salvation for his soul. This search is the apparently agonizing search for wisdom undertaken by alchemists in their pursuit to understand the inner workings of nature through material transformation. Bacon described the physical transformation of matter towards perfection as being a direct representation of man’s innate desire to achieve spiritual perfection because he possesses a soul. For Bacon, the alchemy responsible for the composition of the material world was the same alchemy that took place in the soul since both man and soul were integrated with each other. To provide a symbolic representation of this union between man and his soul, Bacon uses the underlying metaphorical symbolism of death, regeneration, and rebirth with the phoenix,<sup>89</sup> which is traditionally used as a symbol for the transformation of the soul or psyche in alchemical writings and art.

When taking into consideration Hermetic principles and ideals, it becomes evident that Roger Bacon was heavily influenced by Hermetic philosophy along with the apparent experiences it had the potential to produce. For Bacon, the purpose of life was to attain this godlike mentality by aligning one’s thoughts and intentions with the goodness of God’s. This

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<sup>88</sup> Bacon, *The Opus Majus*, 652

<sup>89</sup> *Ibid*, 651.

was done through a purification of the mind which is why the living metaphor of alchemy is used to describe this process. Bacon believed that knowledge of “occult sciences” or alchemy was detrimental in the defense of the impending doom of the Antichrist. This means that Bacon believed that the only way for mankind to defend themselves from the spell of “fascination” performed by the Antichrist, was through *Experimental Science*, or alchemy. If all of mankind were converted to the new form of Christianity, which was to include the “occult sciences,” then the Antichrist would stand no chance of succeeding in his antics to spread evil.<sup>90</sup> Bacon believed that if all of humanity made a practice of alchemy, then everyone would achieve salvation, thus apparently having the inevitable result of resolving the worlds issues. Bacon however, did not provide an profile of the incoming Antichrist as he slightly deviated from the traditional medieval European belief that the Antichrist was Gog and Magog, locked behind gates by Alexander the Great. According to Power, he was unsure if the Antichrist was Gog and Magog.<sup>91</sup>

Bacon did not outright claim that the practice of alchemy would facilitate a mystical experience through the perfection of morals nor did he associate either of those things with a particular connotation towards Hermeticism per se, however he did express that alchemy was a sort of progenitor to the other sciences. He also made it evident that alchemy was the most important component of the *Opus Majus*, this was not through overt statements, but occurred more so in the organization of the ideas he had and the manner in which he presented them. Bacon first wrote the *Opus Majus*, containing some of the knowledge he intended Pope Clement IV to receive. He did this in his explanation of “experimental science” as well as his ideas on “moral philosophy.” He also alluded to the powers that the stone had when he presented the example of Alexander the Great from the *Secretum*. It was only later in other works that Bacon

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<sup>90</sup> Power, *Roger Bacon*, 200.

<sup>91</sup> *Ibid*, 98.

went into a deeper discourse about alchemy. Bacon however, ritually shrouded this in the symbolism of the philosopher's stone as well as in other ways, such as in his equation of achieving spiritual immortality with the symbol of rebirth, the phoenix. He also explicitly referenced the works of Hermes Trismegistus, placing specific emphasis on Trismegistus' explanation of the realization of immortality in man when he turns himself over to God. Bacon also placed emphasis on the fact that all of the ideas in the *Opus Majus* were equally as important to each other and needed to be considered in their totality in order gain a full understanding of the entirety of his work,<sup>92</sup> as Aristotle stated that the sum of the parts is greater than the whole. Therefore, examining the life and work of Bacon while considering the Hermetic influence in his writing, brings into focus the reason why he so badly pleaded with Pope Clement IV to include "occult sciences" in the learning curriculum. This also sheds light unto the reason why he believed that these "occult sciences" would aid in defense against the Antichrist.

### **The Philosopher's Stone**

The irony of the quest for the philosopher's stone in alchemy (such as in Bacon's case, spending 20 years reading 'books of the wise') lies in the realization of the individual that the journey is the destination. According to Islamic sources, such as *Morienus*, this journey or quest leads the individual back to themselves, internally, resulting in the acquaintance with one's actual self or the eternal/immortal part of the being. Morienus says:

This stone is that thing which more than anything else within you is created by God, and you are its prima materia, and it is extracted from, you and wherever you will be it remains inseparable from you [...] and, just as man is composed of the four elements, so is the stone, and he (the stone) comes from man and you are its prima materia, namely on account of the procedure, and it is extracted from thee, namely on account of the procedure, and it is extracted from thee, namely on the account of the science. In other words the object is within you, namely in the Mercurius of the wise. You are its prima

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<sup>92</sup> Little, *Roger Bacon Essays*, 302.

materia, it is included in you, you keep it hidden in you and it is extracted from you, as it is you who reduce it to its essence and dissolve it, because it cannot be completed without you and you cannot live without it, and thus the beginning reminds one of the end and vice versa.<sup>93</sup>

According to this source, the quest for the philosopher's stone is ultimately an interaction between the individual and their material reality. The outward reality of the individual reflects the inward reality of the individual, which is why Bacon believed that *intuition* was a requirement in the perfecting of the virtues. It was by way of conscious thinking that an individual could purify their thoughts. This intuitional perception Bacon was referring to is similar to Hermetic thought in that, "Hermes considers "mental perception" (intuition) to be the sixth sensory organ. Yet he also believes that perception by the soul and the heart to be indispensable in order to connect with the higher worlds."<sup>94</sup>

Bacon believed that an individual could become more perceptive in aligning themselves to the perfection of the virtues by reflecting on oneself at the end of the day. Bacon does this by referencing the practice of Sextius, a Roman philosopher from the 2<sup>nd</sup> century C.E. in his "correction of the vices." Bacon said, "when the day was over and he retired to rest at night, of questioning his own mind, 'what faults have you corrected today? What vice have you withstood? In what way are you better? Can anything be better or finer than this habit of examining the whole day?'"<sup>95</sup> Bacon is implying that an individual is required to give a conscious effort to be a more virtuous person. Essentially, according to Bacon, an individual simply needs to turn inward and they will be guided in the perfection of their virtues. When this

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<sup>93</sup> Ibn-Umail, Muhammad, and Theodor Abt. *Book of the Explanation of the Symbols = Kitāb Hall Ar-rumūz*. Zürich: Living Human Heritage Publ., 2003, 63.

<sup>94</sup> Izsó, Nóra Sofia. "The New Paradigm in The Light of Ancient Hermetic Teachings." *World Futures* 74, no. 3 (2018): 199-208. doi:10.1080/02604027.2018.1444002.

<sup>95</sup> Bacon, *The Opus Majus*, 673.

purification is done, the searcher is granted more knowledge through the signs in nature and the revelations of certain universal truths.

This intuitional journey is described in the 18<sup>th</sup> century alchemical text *The Golden Chain of Homer* by Anton Kirchweger when he said:

Nature, as the very fine saying of our philosophers is to be understood, namely that one book opens and explains another. In this way he can imperceptibly reach the highest level of Hermetic wisdom, sooner than one can imagine. For the whole of Nature resembles a circular chain, the links of which hang exactly together. When then an enlightened spiritual man, by his studies and investigations, has finally come to perfectly know the first link, it will be easy for him to expand his knowledge from this to the second, from that to the third, and so on from one link to the next....And Nature, this faithful servant of the Lord, will herself guide an eager investigator truly reborn in the light of Grace.<sup>96</sup>

This passage explains how an individual succeeds on the “chain” in pursuit of Hermetic wisdom or as Bacon would call it, a pursuit of “unusual paths of wisdom.” Kirchweger’s remark claiming, “Nature, this faithful servant of the Lord, will herself guide an eager investigator truly reborn in the light of Grace” is similar in nature to an indication that Bacon made in his *Moral Philosophy*. This is can be observed where Bacon quoted Cicero, saying, “The knowledge of the virtues is innate and if permitted to increase, Nature herself would conduct us to the happy life.”<sup>97</sup> This means that both Bacon and Kirchweger, believed that intuition played a major role in the revelations granted to man from God because if man allowed himself to “listen” to his inner voice so to speak, he would be guided in arriving at knowledge of particular universal truths. According to Bacon, this could be done by allowing more time to think and reflect; for him, knowledge that was reached as a result of the time spent in solitude could be expedited by

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<sup>96</sup> Kirchweger, Anton. *Golden Chain of Homer*. San Jose, CA: English Grand Lodge, Rosicrucian Order, 1993, 22.

<sup>97</sup> Bacon, *The Opus Majus*, 671.

avoiding superficial distractions created by the masses. These distractions were created by society in the wake of their collective gluttony for mindless self-indulgences and participation in their personal vices, which Bacon described in the *Causes of Error*.

Bacon also expressed ideas similar to Kirchweger's *The Golden Chain of Homer* in relation to the Hermetic progression towards knowledge along a sort of journey through books. In his *Letter on Secret Works of Art and of Nature and on the Invalidity of Magic*, Bacon explained the "vetting process" that takes place when comes to determining which books may contain truth about the "power of nature and art" and which ones are false magic. According to Bacon, someone who is wise will be able to discern whether or not the text contains false magic or actual wisdom; he says, "Therefore, many books are to be avoided due to incantations, symbols, oaths, conjurations, sacrifices, and things of this sort, because they are purely magical." He continues to say, "The experience of any wise man will teach, therefore, which books are suspect and which not. For, if someone should find in some of them the work of nature and of art, he should accept it; if not, he should leave it as suspect." In his *Letter*, Bacon was attempting to scientifically validate texts pertaining to the "works of art and nature" while discrediting "superfluous" works on magic. Since Bacon self admittedly spent 20 entire years reading "books of the wise," it is evident that he also partook in this journey or path to universal knowledge about nature or *sapientia*, among books or as Bacon might say, he arrived there as a result of his travels on "unusual paths of wisdom." Bacon claimed that through attainment of the philosopher's stone, an individual would gain access to this particular universal knowledge, or other words, arrive at *sapientia*, and would come to know marvelous and great things. We see this also described in *Morienus* as a journey among books:

"But one who has seen this operation performed is not as one who has sought for it only through books, for there are books which mislead those in quest of this knowledge. And

the greater part of those books are so obscure and disorganized that only those who wrote them can understand them. But he who is eager for this knowledge and pursues it does well, for by means of it he will gain access to strange things he has never known before.”<sup>98</sup>

One example of a likeness in comparison between Bacon’s “alchemical journey” among books to another so-called alchemist’s journey in history can be observed in a 16<sup>th</sup> century French work by an individual named Pontanus, titled “The Secret Fire”. Potanus claims that he discovered the truth through rigorous study of “books of the wise.” This is seen when he states, “Studying still, none the less, in the books of the Wise, and my doubts increasing, I discovered the truth: and yet, notwithstanding I had knowledge of the material, I erred two hundred times before finding the operation and practice of that true material.” Pontanus is talking about the rigorous search for “truth” done in contemplation and solitude; however, Pontanus explains this process using esoteric terminology from that of the 16<sup>th</sup> century. However, the main points of his “journey” can be extracted when examining his personal account of alchemical transmutation when he says, “Those who read...shall never come to an understanding of it though they live one hundred million years; for this fire may not be discovered but by the sole and profound meditation of the mind...Error in this Art, consists only in the acquisition of this fire, which converts the material into the Stone of the Wise.” Pontanus continues on to say:

...I set myself to study the books of the Philosophers for three years continual, studying among others those of Hermes, whose brief words contain the whole magistry of the stone; though he speaks quite obscurely of things above and below, of Heaven and of the Earth...The Philospher’s stone is unique, and one, but hidden and veiled in a multiplicity of different names, and before knowing it you will have seen much struggle: only with difficulty will you come to know it by your own genius....Search therefore, this fire with all strength of your mind, and you shall reach the goal you have set for yourself; for it is this that brings you to completion of all the stages of the Work, and is the key of all the

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<sup>98</sup> Morienus, *A Testament of Alchemy*, 39.

Philosophers, which they have never revealed in their secret books. If you think well and deep upon this above-mentioned fire, you will know it. Not otherwise.”<sup>99</sup>

Pontanus’ account of his own alchemical “transmutation” mirrors that of Bacons in several ways. Both of them searched for wisdom or the “philosopher’s stone” through alchemy and both of them also spend a significant amount of time and effort, searching for this wisdom. Bacon and Pontanus also both spoke in a manner that was symbolic and allegorical, which reflects the esoteric tradition of using language that could only be understood by those who were initiated into the teaching and they also both quote Hermes Trismegistus. This is only one example of suggestive comparisons in relevance to providing evidence and support to further demonstrate that Bacon was influenced by alchemy in a spiritual sense.

There is a well of intricate Hermetic alchemical artwork and poetry that contain symbols and deep imagery for the alchemical processes of the mind in its philosophic sense. One particular book which explores this concept is the *Corpus Alchemicum Arabicum or Book on the Explanation of the Symbols Kitāb Hall ar-Rumūz*. In this book, ibn Umail states that “the sages spoke ‘a language in symbols’ and that they ‘would not reveal it [the secret of the stone] except with symbols.’” Ibn Umail also gives a comprehensive list of names for the philosopher’s stone, “referring to one inner mystery or religious experience, which - in contrast to an allegory - cannot be fully explained.”<sup>100</sup> This work represents the Arabic perspective of alchemy, in particular the attainment of the philosopher’s stone as an experience of spiritual transformation. This is important because it alludes to the fact that Bacon knew about this, since in numerous instances throughout his works, he mentions the philosopher’s stone and its majestic properties

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<sup>99</sup> Pontanus, *The Secret Fire*, translated by Mike Dickman from the French version in the 16th century, Ms. 19,969 in the Bibilothèque Nationale. Archive.org. Accessed January 27, 2019.

[https://archive.org/stream/PontanusTheSecretFire/Pontanus - The Secret Fire\\_djvu.txt](https://archive.org/stream/PontanusTheSecretFire/Pontanus - The Secret Fire_djvu.txt).

<sup>100</sup> Ibn-Umail and Theodor Abt., *Book of the Explanation of the Symbols*.

regarding the secrets of art and nature. This is also significant because it demonstrates the fact that later, the *Secretum*, which is where Bacon first gained his inspiration for partaking in the quest to find the “philosopher’s stone,” was found to have been authored not by Aristotle, but by an Arabic author who signed the manuscript as Aristotle.

The *Corpus Alchemicum* states that, “Many alchemists practiced a form of meditation, which...resembles the Indian yoga. It is a procedure in which the ego tries to deal with the deeper psychosomatic layers of the human psyche.” This indicates that the alchemical experience resulted in something like an elevated state of consciousness where the observer was granted insight into the “secrets of nature”. This was actually the subconscious psychological recognition of the interconnectedness of nature and the unity of matter. The *Corpus Alchemicum* points out that “the Indian and Chinese Taoist yoga localized the contents of their imagination in the sphere of the body, [while] the western alchemists saw the same processes happening in the outer chemical retort. This text also states that according to Avicenna, “[alchemy] did not belong to the ordinary natural sciences,” and that “It was basically a kind of magic,” and that “the adept submitted himself to the process of yoga meditation and of religious exercises of self-purification through which he came closer to the divinity.”<sup>101</sup> The descriptions of spiritual alchemy in the *Corpus Alchemicum* showcase the psychological elements of alchemy in relation to gaining a mystical or religious experience, or what Bacon deemed the attainment of *sapientia*.

Aside from alchemical language present in documents and manuscripts throughout the course of history, there is also a plethora of symbolic imagery prevalent in artwork. A detailed account of the psychological symbolism present in alchemical art is described in *Transformation*

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<sup>101</sup> Ibn-Umail and Theodor Abt., *Book of the Explanation of the Symbols*, 36.

*of the Psyche: The Symbolic Alchemy of the Splendor Solis*. The *Splendor Solis* is a collection of illuminated paintings that contain symbolic representations of the alchemical process. The author remains unknown however the person who constructed it used the pseudonym Salomon Trismosin who, in an evaluation of his account, allegedly made a successful attempt at the alchemical journey.<sup>102</sup> The symbolism within alchemical art is closely intertwined with elements of the psyche because it presents the ineffable process and experience of the alchemical union with images that the mind can understand and process. Numerous artists used artwork as an outlet to express that which they could not otherwise convey with traditional, linear language. Viewing these processes as concrete images allowed an individual to contemplate the alchemical processes. “For the author of the *Splendor Solis*, alchemy was a practice for healing and transformation of the human soul.”<sup>103</sup> This book states that alchemy was both “external and internal, embodied and spiritual, practical and abstract.” It also states that “The language of alchemy is one that combines sensory observations of materials and processes with a language for the phenomenology of inner experience. The concrete and the symbolic are interfused, eluding a clear distinction.”<sup>104</sup>

In regard to alchemy pertaining to a spiritual experience, Matus gives mention to the Jungian perspective, mentioning that Swiss psychologist Carl Jung “posited that the coded language of alchemy symbolized an untranslatable psychic or mystical journey.” He also mentions Mircea Eliade and his work, *The Forge and the Crucible*, which expresses “the idea that alchemy was a spiritual process aimed not at the transformation of matter, but at that of the soul.” Matus also explains that Roger Bacon proclaimed the alchemical “elixir of life” to be the

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<sup>102</sup> Henderson and Sherwood, *Transformation of the Psyche*, 22.

<sup>103</sup> *Ibid*, 35.

<sup>104</sup> *Ibid*, 7.

answer to human salvation. This demonstrates that the philosophic end of alchemy was a sort of inner illumination that was metaphorically shrouded with the alchemical “elixir of life” and that Bacon believed that through achieving the ultimate ends of alchemy, an individual could attain “salvation.”<sup>105</sup> These distinctions indicate that for Roger Bacon, the spiritual elements of alchemy are what attracted him to this practice. This is the reason for Bacon’s desire for alchemy to be integrated into the Christian learning curriculum.

Bacon is not the only intellectual of the medieval or the renaissance era to attempt to express the implications of Hermeticism, or more specifically, alchemy in its spiritual sense. There are dozens of individuals throughout these periods who have described this alchemical journey either through literature, poetry, and/or artwork. In fact, alchemy has been of interest to many prominent intellectuals throughout history and they have been unfruitfully attempting to properly disseminate this knowledge to people. The reason for this is because it is a very difficult thing to communicate to a person who knows nothing about this kind of experience. Author Bruce Janacek in his book, details five well-known individuals and assesses the place that alchemy held in each of their lives in a philosophical sense. These individuals include: Thomas Tymme, Robert Fludd, Elias Ashmole, Francis Bacon, and Sir Kenlem Digby – all of whom had a philosophical or religious relationship with alchemy<sup>106</sup> in some sense similar to Bacon’s. Bacon expresses to Pope Clement IV in the *Opus Majus* that this arrival at “universal wisdom” would be hard to prove and difficult to explain when he said, “there is no single point within the realm of knowledge so difficult of proof as this...and objections and doubts frequently present

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<sup>105</sup> Matus, *Franciscans*, 11.

<sup>106</sup> Janacek, Bruce, *Alchemical Belief: Occultism in the Religious Culture of Early Modern England* (Pennsylvania: Pennsylvania State University Press, 2011), 12.

themselves, and authorities and books must be explained more fully than for any other proposition discoverable in the whole range of knowledge.<sup>107</sup>

The similarities between Bacon and these other “alchemists” show that there indeed was some sort of spiritual or philosophical side in which alchemy could be interpreted. Bacon however, struggled to articulate his ideas because he was forced to mask them with symbolic language due to the danger this sort of knowledge posed if it fell into the hands of someone who was “unworthy.” Historian A.G. Little said that just when “one thinks one has obtained an inkling of Bacon’s meaning,” they are met with confusing language, as Bacon feared “lest the ‘unlettered crew’ should understand his secrets.”<sup>108</sup> Bacon’s “unusual paths” to wisdom seemed to have had successively led him to a more acute awareness of human morality and understanding, which is expressed in the *Opus Majus* as the splendor of *experimental science*. He professed that *experimental science* was necessary to obtaining the philosopher’s stone, as he said, “Therefore in regard to this we must strive, that the wonderful and ineffable utility and splendor of experimental science may appear and the pathway may be opened to the greatest secret of secrets, which Aristotle has hidden in his book on the Regimen of Life.”<sup>109</sup> Bacon believed that the alchemical philosopher’s stone would be the saving grace of not only Christianity but also humanity.

### ***Species and Universal Wisdom***

In the *Opus Tertium* Bacon declares that, ‘Besides these [aforementioned] sciences, there is one more perfect than them all, on which the others attend, which certifies them all in a wonderful way; and this is called experimental science.’ He also says that, “this science is

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<sup>107</sup> Bacon, *The Opus Majus*, 52.

<sup>108</sup> Little, *Roger Bacon Essays*, 309.

<sup>109</sup> Bacon, *The Opus Majus*, 618.

superior to other sciences, in that it tests arguments by appealing to experience.” The “experience” however that Bacon is referring to is the experience brought on by practicing philosophic alchemy or what he referred to as “speculative alchemy.” This experience was, according to Bacon, the only true way of arriving at a sort of internal *knowing* of the true essence of nature. “In discussing natural phenomena, the only test, according to Bacon, is experience; argument alone is worthless. This science not only gives to those who use it a sound knowledge of nature, it also teaches the possibilities of nature and art and the nullity of magic.”<sup>110</sup> He also believed that this “experience” was universal in nature, that every individual was capable of reaching the same level of wisdom and that all the greatest patriarchs, sages and philosophers throughout history had gained their wisdom or *sapientia* from this experience.

Bacon also believed that the “experience” gained by practicing *experimental science* was the prerequisite to an individual’s ability to extend their *species* beyond themselves, thus granting them the ability to affect the *species* of others. The traditional medieval definition of *species* is defined as “that which is seen in a thing, i.e. *the outward appearance, outside, exterior; shape, form, figure, mien, etc.*”<sup>111</sup> Bacon’s conception of *species* however differs from the traditional definition. For Bacon, *species* can be best described as a sort of projected thoughtform or perhaps what we would call “energy.” According to Power, “the *species* of something was, for Bacon, a kind of power which emanated from it in all directions. The strength of this power, and its ability to influence the things it came in contact with, depended very much on the kind of thing that was producing the *species*. Higher things affected lower things, but not the other way around.” Bacon believed that the *species* of something interacted

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<sup>110</sup> Little, *Roger Bacon Essays*, 300.

<sup>111</sup> Andrews, E. A., William Freund, Charlton T. Lewis, and Charles Short. *A Latin Dictionary Founded on Andrews Edition of Freunds Latin Dictionary*. New York: Oxford Univ. Press, 2002.

with the species of other things and that the *species* of higher things such as the planets and the stars affected the *species* of lower things such as the minds of humans. However, since every person has free will, they were able to alter the outcome of these influences despite their predispositions. In Bacon's treatise titled, *De multiplicatione specierum*, he explains the process in which the *species* is multiplied. According to Bacon, the *species* moved in "straight lines or angles or refractions, depending on the medium through which they were passing." Therefore, the multiplication of the *species* could be "investigated mathematically." For Bacon, "the diversity in nature was caused by the different rays of *species* falling in different ways."<sup>112</sup> So essentially Bacon believed *species* was a sort of invisible light, and as we know light is energy.

The "possibilities of nature and art and the nullity of magic" are discussed by Bacon in his *Letter on Secret Works of Art and of Nature and on the Invalidity of Magic*. This was a letter from Bacon to William of Paris, also called William of Auvergne. William taught at the University of Paris and "became one of the most celebrated of the theologians of the university." His most noted works include a metaphysical treatise called *De Universo*, as well as two psychological treatises which were titled, *De Anima* and *De Immortalitate Animae*.<sup>113</sup> The significance in Bacon's correspondence with William of Paris lies in the content of the letter Bacon sent to him while also considering William's interest in metaphysics and psychology. The title of the letter to William essentially sums up the contents of the letter and the point that Bacon was trying to make; that is, that there is a difference between "magic" (which he says is useless) and the "secrets of art and nature" which he describes as not magic, but science.

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<sup>112</sup> Power, *Roger Bacon*, 105.

<sup>113</sup> Turner, William. *History of Philosophy* 37. Accessed May 12, 2019. <https://maritain.nd.edu/jmc/etext/hop37.htm>.

In Chapter III of Bacon's *Letter*, titled, "On the power of speech and the refutation of magic," Bacon describes something that he refers to as *species*. Bacon believed the power of words held a substantial amount of weight in the outcome of a given situation depending on the intention of the person who is directing the words or thoughts. He said that this was not magic but was science; given the Hermetic relationship between mind and matter, the influence in Bacon's writing is evident. According to Bacon, *species* is the means in which an individual can influence and interact with the outer world via their inner thoughts and intentions. This makes sense when considering what he has to say about *species*. "Because the truth never hurts, we must consider most carefully that every agent extends its power and *species* from itself to external matter." Bacon believes that "man" or humans, are of a higher status in the world, granting them the ability to extend their *species* "beyond [themselves]" He says, "Hence man, since he is nobler than all other corporeal things, most extends his power and *species* beyond himself...spirits and heats emanate from him as they do from other animals."

By way of their *species*, Bacon claimed that an individual could affect "external matter," that is, if they possessed the credentials necessary for harnessing and directing such power. Bacon believed that if an individual had good intentions, were sound of mind, virtuous, and possessed a great motivation or drive to "do some great work," that basically, the forces of the world would join together to make it happen. According to Bacon, this was because man possessed a particular kind of power and could harness it to be used for good and noble pursuits. The following excerpt from Roger Bacon's *Letter* indicates validity in the former observation:

When, therefore, such things are found in a man as good health, strength of body, youth, beauty, elegance of limb, a soul free of sins, a strong mind, and eager desire to do some great work, then whatever can be done through the power and *species* of man... This is especially the case if strong desire and valid intention are not lacking. Therefore, when all the said causes join together, some things can take place through the words and works of

man. For words result from inside through the thoughts and desires of the soul, by the...*species* which can be produced by the soul and the heart.

The message that Bacon was attempting to convey through explaining universal science or “wisdom” was that there exists one particular type of wisdom, that is universal in nature and can be realized by any individual. He believed that this wisdom was the only wisdom meant to be known to man by God, and that there was no higher degree of truth than that of which was involved in the knowledge of this wisdom. He says this is because “God is the intelligence active in our souls in all cognition.” Once a connection between universal wisdom and the individual was established, it resulted in a state of consciousness where the observer was granted insight into the “secrets of nature” which was actually the subconscious psychological recognition of the interconnectedness of nature and the unity of matter.

The late physicist Isaac Newton had numerous unpublished works which included an extensive amount of writings on alchemy. He also is responsible for the Latin to English translation of the contents found in the *Emerald Tablet*. This was an alchemical text included in the *Secretum* that contained a sort of riddle regarding the “secrets of nature”, the Translation is as follows:

This true without lying, certain and most true.  
 That which is below is like that which is above and that which is above is like that which is below to do the miracles of one only thing  
 And as all things have been and arose from one by the meditation of one: so all things have their birth from this one thing by adaptation.  
 The Sun is its father, the moon its mother, the wind hath carried it in its belly, the earth is its nurse.  
 The father of all perfection in the whole world is here.  
 Its force or power is entire if it be converted into earth.  
 Separate thou the earth from the fire, the subtle from the gross sweetly with great industry.  
 It ascends from the earth to the heaven and again it descends to the earth and receives the

force of things superior & inferior.

By this means you shall have the glory of the whole world  
and thereby all obscurity shall fly from you.

Its force is above all force. For it vanquishes every subtle thing and penetrates every solid thing.

So was the world created.

From this are and do come admirable adaptations whereof the means (or process) is here in this. Hence I am called Hermes Trismegist, having the three parts of the philosophy of the whole world

That which I have said of the operation of the Sun is accomplished & ended.<sup>114</sup>

This is significant because The *Emerald Tablet*, since it was included in the *Secretum*, was also read by Bacon, and is partially responsible for his sudden diversion from classic scholasticism to his later work, which consisted of topics untraditional to the common scheme of the more religiously centered bodies of learning circulating in Europe at the time.<sup>115</sup> Therefore, Bacon's ideas regarding *species* were directly correlated with the axioms in the *Emerald Tablet*. Perhaps like Newton, the scientist in Bacon was excited by the axioms presented in the ancient text. Considering that the *Emerald Tablet* was included in the version of the *Secretum* that Bacon read, this text likely aided in prompting Bacon's ideas concerning "experimental science" in the *Opus Majus* and the relationship between mind and matter described using the idea of *species*, found in his *Letter on Secret Works of Art and of Nature and on the Invalidity of Magic*. This indicates that what came to be known as Hermeticism, heavily influenced Bacon's later works. Pontanus, also claimed to have experienced a "transformation" as a result of his studies and he also referenced the *Emerald Tablet* in his writings. Pontanus said, "...I set myself to study the books of the Philosophers...studying among others those of Hermes, whose brief words contain

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<sup>114</sup> Isaac Newton. "Keynes MS. 28". *The Chymistry of Isaac Newton*. Ed. William R. Newman. June 2010. Retrieved March 4, 2013.

<sup>115</sup> Ebeling and Lorton, *The Secret History*, 1.

the whole magistry of the stone; though he speaks quite obscurely of things above and below, of Heaven and of the Earth...”<sup>116</sup>

The *Emerald Tablet* can be “translated” from symbolic terminology to modern practical terminology through the perspective of the sun being the “light-giver,” that allows at least our solar system, to exist. According to Bacon, the sun is also responsible for being the origin of *species*, since it is of the highest planetary order among the spheres and because *species* behaves the same way light does. The axioms in the *Emerald Tablet* basically state that the sun is God because all life comes from it, it also states that it is the “father of perfection.” This means that the sun is where the soul comes from and that earth or “matter” is intertwined with the energy of the sun. If one can “separate” the earth from the fire, that is the body from the soul, then the soul or corresponding “energy” that was exuded by the *species* of that body, would ascend to the heavens while the *species* of the heavens would descend to that body. This “force” is the strongest force in the universe, and it can penetrate matter. The *Emerald Tablet* says, “by this means you shall have the glory of the whole world.” Since recent studies in the realm of physics have proven that everything is made up of vibratory energy, the axioms in the *Emerald Tablet* seem to hold scientifically significant information, though it does not appear that way to modern readers

The sun, which allows the possibility of life on earth, is the giver of light, and fundamentally, of energy. Bacon suggests that material reality on a metaphysical level, is essentially a mathematical composition of the sun’s *species*, or its invisible light energy which protrudes from itself and is interlaced and overlapped like a great geometrically precise spiderweb

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<sup>116</sup> Pontanus, *The Secret Fire*

that stretches over the entirety of all material bodies capable of exuding *species*. Since according to the *Emerald Tablet*, the sun was the possessor or “role model” of perfection, this suggested that at the fundamental level, Bacon believed that mankind’s souls were inclined to possess a desire to progress towards a state of perfection mathematically equivalent to that of the sun’s *species*. The soul, or, a portion of energy invisibly extended from the sun into the body of man (matter) was capable of recognizing that from which it originated from through man’s conscious efforts to search within himself for what the alchemists (such as the aforementioned Pontanus) called the “fire.” This “fire” was actually what Bacon considered to be, an extension of *species* from the sun that interacted with the *species* that reflected itself in nature through the body of man. Man was special in that he possessed both a body which was made of earth, as well as a soul which was an extension of the sun. This was considered to be the “alchemical union” of spirit becoming fully integrated and infused with matter. The opposing forces that compose man’s being clashed together to ignite what the Gnostics referred to as the “divine spark” that is said to be present in every man. When the likeness of the *species* in the body mirrored the likeness of the *species* of the sun, it resulted in the self-realization of immortality in the individual exuding the *species*, as discussed earlier. This where Bacon draws his ideas from in *Moral Philosophy* pertaining to the soul and man and his description of the purpose for the combination of the soul and the body.

The idea surrounding *species*, reflects the emphasis on interrelation between mind and matter in Hermeticism, because according to Hermetic philosophy everything is “one” and has originated from one source. Again, Bacon uses the *Secretum* to describe this stating, “Many such things, and many more marvelous ones (as Aristotle teaches in his Book of Secrets), take place through the *species* and powers of plants and animals...man can far more extend his powers and *species* and emit heat to alter bodies outside him.” Bacon says that the *species* of one person can

affect the *species* of another person depending on their internal state. He says, “Conversely, healthy men of good complexion and extreme youthfulness comfort others and men enjoy their presence. This is due to...*species* and powers that they exude.”<sup>117</sup> Bacon’s ideas concerning the “power of words” seem to reflect a belief that through the energy or “species” produced by an individual's thoughts and emotions, they had the ability to affect their external reality. For Bacon, the “power of words” could be described using *species*, because the *species* of something behaved in the same manner in which light did, that is protruding in straight lines and abiding by the laws of refraction

Bacon believed that *experimental science* was even more useful than mathematics because of its ability to “stir curiosity and make possible the understanding of many things.” However he also said that, “we have shown how mathematics is necessary to wisdom, both sacred and human.”<sup>118</sup> He also claimed that mathematics was “the “gate and key” to all the sciences, as well as to an understanding of matters secular, ecclesiastical, and divine.”<sup>119</sup> Bacon also claimed that “the theologians grasp on the scriptures...depended on knowledge of properties and natures of things in the world, which could not be known without mathematics.”<sup>120</sup> He believed that “all things in the cosmos were bound together in a series of relationships that could only be explained mathematically.” This concept was “central to his understandings of the workings of the universe.” He claimed that mathematics was prevalent in the geographical precision of certain religious locations throughout the Bible. However, Bacon said that mathematics had not been able to reach its full potential because it had been associated with astronomy, which at the time, was associated with astrology. For Bacon, mathematics was at the

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<sup>117</sup> "Roger Bacon, On Secret Works."

<sup>118</sup> Bacon, *The Opus Majus*, 261.

<sup>119</sup> Power, *Roger Bacon*, 104.

<sup>120</sup> *Ibid*, 107

heart of the creation of the universe. He also claimed that by physically looking at geometric shapes and figures, it would “excite the soul” and had the potential to lead to a mystical experience.<sup>121</sup>

Further, Bacon believed that an individual was able to understand the “secrets of nature” in Pseudo-Aristotle’s *Secret of Secrets* by way of attainment of the “philosopher’s stone.” He also believed that this stone granted the wielder the ability to affect the “complexion” of others. Bacon believed in the “magical power” of words and intention. We may have an explanation into Bacon’s interpretation of how Alexander the Great conquered most of the known world at that time and was responsible for the spread and intermixture of culture throughout the Middle East. This was because according to the *Secretum*, he had the philosopher’s stone, meaning he was able to influence the “complexions” of groups of people in his crusade. It was because Alexander evidently had noble pursuits and good intentions, which granted him the ability to conquer and achieve all that he did. Bacon attributed importance to the ability of an individual who possessed philosopher’s stone, to affect the “complexion” of others as well as societies as whole. Bacon quoted the *Secretum Secretorum*, stating:

In connection with which Aristotle, the most learned of philosophers, when Alexander asked of him concerning some tribes that he had found, whether he should kill them on account of their barbarity or let them live, responded in the Book of Secrets if you can change their air let them live; if not, kill them. He wished that their air could be altered usefully, so that the complexion of their bodies could be changed, and finally the mind aroused through the complexion should absorb good customs from the liberty of their environment; this is one use of this science.<sup>122</sup>

Therefore, according to Bacon, an individual who possessed the philosopher’s stone, that is, an individual who was able to attain *sapientia*, or the experience described in *Experimental*

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<sup>121</sup> Power, Roger *Bacon*, 108.

<sup>122</sup> "Medieval Sourcebook: Roger Bacon: On Experimental Science, 1268."

*Science*, was able to gain a degree of power over matter. This is why Bacon uses the example of Alexander the Great, who on account of the *Secretum Secretorum*, possessed the philosopher's stone, effectually granting him the ability to conquer most of the known world at the time. According to Bacon, Alexander was instructed to change the "complexion" of others. This "complexion" could best be described as a mindset. Through his conquests, Alexander was responsible for the spread and intermixing of cultures throughout the Middle East. In Bacon's perspective, Alexander's power to create a vast influence of acceptance towards other religions and cultures within preexisting cultures was granted to him because he was in possession of the philosopher's stone.

In the section of the *Opus Majus*, titled *Philosophy*, Bacon describes the meaning of "universal science" or "universal wisdom." Bacon stressed the importance of incorporating occult sciences into the curriculum and notes that people had no idea about the wonderful qualities of this "philosopher's stone" which alchemy could produce. According to Bacon, if an individual obtained the philosopher's stone, then they would reach *sapientia*, the divine wisdom that was universal in nature. In the *Opus Tertium* he wrote,

"As God wishes all men to be saved and no man to perish, and His goodness is infinite, He always leaves some way possible for man through which he may be urged to seek his own salvation. So that he who would wish to consider this way may have the power to do so; and thus urged may see clearly that he ought to seek those things which are needed beyond this way, that he may know through it that revelation is necessary for him and the whole world...Every man may come to this grade of the truth, but no further. For this reason the goodness of God ordained that revelation should be given to the world that the human race might be saved. But this way which preceded revelation is the wisdom of philosophy, and this wisdom alone is in the power of man, yet supplemented by some divine enlightenment which in this part is common to all; because God is the intelligence active in our souls in all cognition, as was earlier shown. This is what moral philosophers teach...and show that a revelation is necessary, by whom it must be revealed and to whom. And it is not surprising that the wisdom of philosophy is of this kind since this

wisdom is only a general revelation made to all mankind because all wisdom is from God.”<sup>123</sup>

Bacon claimed that all greatest prophets, patriarchs, and wise men attained the same wisdom, imparted by one and the same God. Bacon also claims that human lifespans were much longer in the past, however, they have become much shorter. “...in regard to the prolongation of human life...a far longer extension of life is possible. At the beginning of the world, there was a great prolongation of life, but now it has been shortened unduly.”<sup>124</sup> He explains that the reasoning for this is because of sin, “But there is also another [reason for health decline] consisting in the disregard of morals. For sins weaken the powers of the soul...therefore the power of the body is weakened and life is shortened. This weakening passes from father to son, and so on.”<sup>125</sup> The lineage in which Bacon describes how divine knowledge was passed down is as follows: He says that it started with Noah, Seth, Shem, and Abraham, following them were Nemroth, Prometheus, Atlas, and Apollo, after them Solomon perfected philosophy which led to the rest of the “unbelieving philosophers” which were Thales, Pythagoras, Socrates, Plato, and Aristotle. Bacon says “therefore philosophy is merely the unfolding of divine wisdom by learning and art. Hence there is one perfect wisdom which is contained in the Scriptures, and was given to the saints by God to be unfolded.”<sup>126</sup> This demonstrates Bacon’s belief that *sapientia*, or the divine wisdom gained by attaining the philosopher’s stone, was universal in nature which would unify humankind in that they would all share the same level of perfection in the virtues.

From the medieval European point of view, especially for Roger Bacon, this divine illumination was from God, and not from the sun, because Bacon was a Christian. Bacon was

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<sup>123</sup> Easton, Roger *Bacon*, 75.

<sup>124</sup> *Ibid*, 617.

<sup>125</sup> *Ibid*, 618.

<sup>126</sup> *Ibid*, 65.

very logical, he did not believe in incantations, and conjuring of demons, and other trickery attributed to the common conceptions of “magic.” However, Bacon wanted Pope Clement IV to authorize the study by ‘good and holy men’ of ‘scientiae of this kind.’ In particular, Bacon used the example of Alexander the Great, who Aristotle apparently wrote the *Secretum Secretorum* for. He claimed that Alexander was able to conquer all that he did with the help of this “scientiae.” Such methods, Bacon said, “were most effective when the rational soul worked with the strength and *species* of the heavens in such a way that there is powerful reflection and ardent desire, determined effort and absolute confidence and, above all, sanctity of life.” This “scientiae,” as Bacon calls it, allowed an individual to effectually affect matter, as he says, “Nothing had such command over nature as the grace of God working through a soul of particular sanctity, because sanctity is nobler than thought or desire, and therefore the matter of the world is more obedient to the sanctified soul.” Bacon believed that this wisdom alone could protect Christians against the fury of the Antichrist, even claiming that they didn’t need weapons.<sup>127</sup>

Bacon’s ideas concerning *species* and a “universal science” are derivative of his encounter with spiritual alchemy in the *Secretum Secretorum*. The reason why Bacon referred to these indications as “great secrets of the sciences and of the arts and the hidden things in nature” is because the society of Europe during the 13<sup>th</sup> century, as well as civilization in general, did not possess the more advanced technical language that we now have. They also did not have access to the 900 years of knowledge that passed between then and now. As a result of this, individuals who lived in the past, used the language of symbolism, allegory and metaphor to describe their experiences. Bacon described the interconnectedness of mankind with nature through his

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<sup>127</sup> Power, *Roger Bacon*, 202, 205.

description of how *species* operates. He also claimed that every person was individually capable of attaining the same type of wisdom because they are all from the same species, that is they are all humans. It was by way of the *species* that Bacon believed one person could influence the moods of others. Therefore, according to Bacon, if an individual possessed the philosopher's stone, by way of their species, they could essentially spread this "mood" to others so to speak. Perhaps in his mind, Bacon believed that *sapientia* would spread like fire among Christians, inevitably resulting in humanity's salvation as a whole.

What Bacon was trying to do, was explain that what we know now as Hermetic philosophy, was based on science or what he called "the secrets of art and nature." These secrets of nature were, as he was describing, the power of words and intentions of an individual to affect other bodies of matter outside of themselves. However, apparently, the acquisition of the philosopher's stone, or rather, the arrival at *sapientia* served as a sort of prerequisite to these "powers." Bacon was claiming that this could be justified and explained by natural scientific processes rather than magic. Bacon however, lacked the modern scientific terminology we now have today. This is essentially what Bacon was attempting to convey to Pope Clement IV in the *Opus Majus*, using symbolic language that was also limited in definition due to the loss of meaning which occurs when translating one language to the other. "He [Bacon] was apparently trying to articulate ideas for which his own age had no words, no predilection, and no understanding...Bacon went his own way, building his own amalgam of faith, magic, philology, and natural philosophy."<sup>128</sup> Bacon claimed that individuals had been misled not only by faulty translations, but also by the vast array of "useless" magical texts, which led to misconceptions among the masses. This caused the "secrets" to be lost in the sea of falsities and faulty

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<sup>128</sup> DImperio, M. E. *The Voynich Manuscript*, 49.

knowledge which tarnished its reputation and diminished its meaning. Bacon was attempting to set the record straight and proposed that knowledge of these secrets or “occult sciences” prevalent in *Experimental Science*, would perfect the existing Christian curriculum at Oxford and Paris, and grant protection against the Antichrist as well as internal, eternal salvation.

### ***The Causes of Error***

Bacon describes society’s distractions or “errors” in gaining *sapientia* in the first section of the *Opus Majus* titled, *Causes of Error* which are known as his “four causes of error” or “Four very significant stumbling-blocks in the way of grasping the truth, which hinder every man (sic) however learned, and scarcely allow anyone to win a clear title to wisdom.” These four distractions or “errors” were: “the example of unreliable and unsuited authorities, the long duration of habit, the opinion of the ignorant masses, and the propensity of humans for disguising ignorance by the display of psuedo-wisdom”<sup>129</sup> It is in this section that Bacon describes the reasons why individuals have not been able to reach “truth” which is, according to the argument in this paper, the truth gained after attaining the philosopher’s stone or reaching *sapientia*. Bacon says that “our entire intellect is obstructed by many difficulties...wherefore in the investigation of truth the feebleness of our own intellect suffices for us, that we may to the best of our ability put extraneous causes and occasions of error at a father remove from our weak power of sense perception.”<sup>130</sup>

In *Causes of Error*, Bacon stated that the current authorities, that is ecclesiastical authorities, were “like a lame and blind shepherd with many sheep...wandering through the by-paths of untruth,” and he says that the multitude “have neither the power nor the knowledge to

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<sup>129</sup> “Bacon's Four Stumbling Blocks to Truth.” Accessed May 12, 2019. <http://www2.hawaii.edu/~daniel/bacon.html>.

<sup>130</sup> Bacon, *The Opus Majus*, 4.

recall the more healthful pastures of science.”<sup>131</sup> Bacon claimed this was causing corruption between the Church and the masses because it was creating a sort of closed-circuit exchange of false ideals which led to misinformed interpretations of Christianity and the Bible among the multitude as well as ecclesiastical authorities. Bacon also makes a reference to Seneca, stating, “Nothing involves us in greater evils than the fact that we regulate our lives by mere report, reckoning best that which has been so accepted by general consent, and we do not live according to reason but in accordance with our desire to copy others.” He also says that “many have chosen to remain in error and to defend the opinion to which they are sentimentally attached.” Here, Bacon makes another reference to Hermes Trismegistus’ *Divine Nature*, he says, “Because of the viciousness of custom he asks in the first book on the Divine Nature, ‘Is not the investigator of nature ashamed to seek testimony to the truth from minds steeped in custom?’” Roger Bacon claimed that people in society were: blindly following false authority, partaking in societal customs for the primary reason being that they were accustomed to doing them, and ignorantly fixating their opinions of things based on matters in which they were ill-educated. Bacon says that “those who have armed themselves with the multitude, have confessed themselves to be unprotected by the truth.”<sup>132</sup> According to Bacon, most people in society were “caught up with each other” so to speak, or as Bacon described it, were involved in a situation where there was a “heaping together of man tumbling over man.” What Bacon was saying is that there was a sort of mob mentality taking place in society; that every body’s perception of reality had become skewed. According to Bacon, people had become so far-removed from the truth because each person was only concerned about the opinion of another’s, typically regarding superficial matters rather than being focused on truth and salvation. Bacon said that people had become “lazy”

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<sup>131</sup> Ibid, 8.

<sup>132</sup> Ibid, 7-8.

because it is easier for them to “wander through the paths of untruth” than it is for them to question authority and custom. Bacon also said that people are inclined to “think they are in the full light of truth,” while they are really, “in the densest shadows of error.” Bacon claimed that people no longer desired perfection in regard to virtue, truth, and science.<sup>133</sup> According to Bacon, these distractions or “causes of error” are the reasons why society, that is the “multitude and authorities,” were ignorant of the truth, although they believed that they were in possession of it.

In the third part of the *Opus Majus*, titled, *Study of Tongues*, Roger Bacon expressed concern regarding another obstacle that he believed was in the way of gaining a correct interpretation of the Bible and reaching *sapeintia*. Bacon says that mostly all of the secrets of philosophy are unknown to the Latins because of their lack of ability to translate properly. “Likewise almost all the secrets of philosophy up to the present time lie hidden in foreign languages. For as in many instances only what is common and worthless has been translated; and even much of this character is lacking. For lines almost without number, chapters, parts of books, and whole books are omitted in the works on metaphysics, nature, logic, and on other topics, besides great secrets of the sciences and of the arts and the hidden things of nature that have not yet been translated.”<sup>134</sup> Bacon was attempting to explain to the pope that faulty translations of the Bible have led to an incredible mass misinterpretation of the original text. He also claimed that “great secrets of the sciences and of the arts and the hidden things in nature” had not yet been translated. As we have already established, the secrets Bacon are referring to are the so-called secrets of nature that involve alchemy and the philosopher’s stone. For Bacon, the “secrets of the sciences and of the arts and the things hidden in nature” involved the “experience” instigated

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<sup>133</sup> Ibid, 4.

<sup>134</sup> Ibid, 79.

through the practice of alchemy, as well as the way these “secrets” were involved the processes of utilizing what Bacon called a person’s *species*.

Knowing how to translate first-hand was imperative to Bacon, especially the Hebrew language because he pointed out that faulty translations of the Bible, continuously over time, had misconstrued the original text. A modern example of variations among translations causing confusion is described in a journal article titled, “El, Elohim, and Yhwh in the Bible” which was published in *The Jewish Quarterly Review*. This article analyzes the technical differences in alternating versions of the name for God in Genesis. At different points throughout opposing versions of the text, the names for God are referred to as either El, Elohim, or Yhwh (Yahweh). El and Yhwh are both singular while Elohim can be translated into the plural, “gods.”<sup>135</sup> This is just one small yet significant example that provides insight into the way texts could have been easily misinterpreted upon their translation from Hebrew into Latin during the Middle Ages.

Bacon outlines the detrimental effects that faulty translations of the Bible have had on the Catholic church as well as mendicant religious orders such as the Franciscans and the Dominicans. “But there are many contradictions in the edition [of the Bible] in Paris, Therefore this edition needs a thorough correction by means of ancient texts. But Augustine says...that if a doubt still remains in the ancient Bibles, we must then have recourse to the Hebrew and Greek languages.”<sup>136</sup> He continues to say that Greek and Hebrew Bibles along with ancient Bibles stand in opposition to the Paris edition. The problem with this is that it caused too much diversity between beliefs and therefore made the truth unattainable. “But those who are striving with all the truth they know to correct the text, namely the two orders of Dominicans and Franciscans,

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<sup>135</sup> Segal, M. H. "El, Elohim, and Yhwh in the Bible." *The Jewish Quarterly Review* 46, no. 2 (1955): 89. doi:10.2307/1452792.

<sup>136</sup> Bacon, *The Opus Majus*, 87.

have now formed from the corrupted text various scriptures that more than one Bible may contain. They contend with each other and contradict without end; and not only the orders, but the brothers of both orders, oppose one another even more than the orders as a whole. For every house contradicts one another.” What Bacon means by this, is that although the members of the Franciscans and the Dominicans were dedicated to knowledge and truth, they were arguing over whose interpretations were right. Rather than working together to arrive at an intellectual consensus regarding matters concerning the truth about the knowledge of God within the scripture, they contended with one another over translations that, according to Bacon, weren't even accurate.<sup>137</sup> Bacon claims that another reason why Latins should know languages is to prevent false interpretations, particularly in the area of secret sciences, which are “too obscure owing to the ignorance on interpretations.”<sup>138</sup> What the friar is saying is, that if a person lacks the ability of fluency in another language, then they misinterpret the meaning of a text entirely, because there are words which aren't translatable because they have a specific denotation which cannot be replicated in a different language. He especially noted that it was in the area of the “secret sciences” that these individuals were lacking insight; indicating Bacon believed that the orders could gain knowledge of alchemy if they were able to translate the texts themselves.

Through close observation of Roger Bacon and his work, the message he was attempting to disseminate to Pope Clement IV becomes evident. By taking what Bacon said regarding salvation and truth in various sections of his *Opus Majus* and combining them, a clearer picture is developed. What Bacon was trying to say, was that the majority of people were not in touch with their inner most selves, and that society and the church had become corrupt. This was

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<sup>137</sup> Ibid, 88.

<sup>138</sup> Ibid, 93.

primarily caused by faulty translations of the Bible; from the very first translation of the Hebrew into Latin, until the time in which Bacon was writing. According to Bacon, these faulty translations had grown out of control and had caused a rift in society because of the way they led individuals to interpret the scripture wrong. Bacon believed that Christianity could be “fixed” so to speak; this was through encouraging individuals to become familiar with multiple languages, especially Hebrew because according to Bacon, it was the language given to man by God in the beginning. Bacon claimed that if people were able to themselves translate not only the Bible, but also philosophic texts concerning the “great secrets of the sciences and of the arts and the hidden things in nature.”

As already established in this paper, the “great secrets of the sciences and of the arts and the hidden things in nature” that Bacon was referring to were related to alchemy. Through the “experience” facilitated by the practice of philosophic alchemy, Bacon believed that an individual could reach a state of wisdom that was universal in nature, that is, each person was capable of reaching the same type of wisdom. The *Study of Tongues* indicates that from the “beginning of time” or more so, the commencement of Christianity, the Bible and other important texts have been either mistranslated or not translated at all. Bacon claimed that the “great secrets of the sciences and of the arts and the hidden things in nature” were predominantly undiscovered and unknown to Europe. These secrets concerned the creation of the alchemical philosopher’s stone and what possession of the stone meant for the individual. As noted, possessing the philosopher’s stone occurred when the individual reached *sapeintia*, thus granting them the awareness of the unity of matter. This realization allowed the individual to make meaningful psychological connections with their external material reality. The *Causes of Error* expresses that authorities are naïve of divine wisdom or *sapeintia*, and that their lack of true

knowledge regarding the secrets of art and nature has caused them to blindly lead and misinform the masses. *Experimental Science* expresses that there is a sort of mystical or religious experience to be had through coming to an understanding of alchemy and that this experience is necessary in order to comprehend the secrets of nature and art. As previously quoted, Jeremiah Hackett said, “Bacon placed occult science at the center of his experimental method.”<sup>139</sup> Finally, in Bacon’s *Moral Philosophy*, he describes the “experience” using the words of Hermes Trismegistus from the *Divine Nature*. This “experience” is described as man’s (the soul *and* the body’s) self-realization of immortality.

Bacon was unsure that the Antichrist was Gog and Magog; however, he did claim that the Antichrist would attempt to capitalize on the “occult sciences” or hidden powers in nature and use the means of “fascination” to lead humanity astray unto evil. Therefore, Bacon’s idea of the Antichrist was more or less somebody or *something* that would distract each member of humanity from realizing their individual potential to themselves become “godlike” through gaining the “experience” brought on by practicing alchemy in its philosophic context. Further, Bacon was proposing a systematic approach to reaching this wisdom in a shorter amount of time than he did, because he had already done the labor in acquiring the means of attaining this knowledge. Bacon believed that if the pope would allow for the correction of religious texts and include the knowledge of alchemy in the Christian learning curriculum that people would begin to reach a “universal wisdom,” that it would spread to others and then others, eventually leading to humanity’s collective salvation. Bacon urged the pope to at the very least, “place the foundations, dig out the sources, and make firm the roots.” According to Power, Bacon did this “so that his successors would be able to build on what he had begun.”<sup>140</sup> This was because

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<sup>139</sup> Hackett, *Roger Bacon*, 280-1.

<sup>140</sup> Power, *Roger Bacon*, 98.

according to Bacon, an individual in possession of the philosopher's stone, which was the universal wisdom he was referring to, would be able to by their *species*, affect the "complexion" of others as Alexander the Great did. The reason why this knowledge was so sensitive is because at the time, an idea like this was astronomical, and the implications of such an idea were even more vast. This connection proves that Roger Bacon believed that alchemy would be not only be the saving grace of Christianity but also humanity.

### Conclusion

Bacon's work has been influential to both the modern scientific world and the mysterious "occult" world of alchemy and magic. It is said that, "His work was so popular that it encouraged others to experiment on their own, and by so doing helped bring about the Renaissance."<sup>141</sup> It appears as Bacon's work has throughout history been interpreted in two different ways. On the one hand, Bacon was popular for the birth of the modern scientific method, and inventions such as the magnifying glass and gunpowder.<sup>142</sup><sup>143</sup> His ideas have led to innovations in the fields of science and continue to be of influence in modern times. On the other hand, Bacon has deeply influenced popular occultists such as the magician and court astrologer to Queen Elizabeth I, John Dee,<sup>144</sup> whom owned an extensive amount of Bacon's works, Dee owned more works by Bacon than any other author.<sup>145</sup> Dee knew that "alchemy was by no means limited to the art of trying to transmute base metal into gold" he was aware to the fact that "its essential function was to transmute the human spirit through gnosis...[and] we have seen this view expressed in Dee's

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<sup>141</sup> Davidson, Michael W. "Roger Bacon." Molecular Expressions. Accessed January 27, 2019. <http://micro.magnet.fsu.edu/optics/timeline/people/bacon.html>.

<sup>142</sup> "Spectacles." Accessed January 31, 2019. <https://ece.umd.edu/~taylor/optics2.htm>.

<sup>143</sup> Little, *Roger Bacon Essays*, 321.

<sup>144</sup> Szonyi, Gyorgy E., *John Dee's Occultism: Magical Exaltation through Powerful Signs*, Albany, New York: State University of New York Press, 2004, 194.

<sup>145</sup> French, Peter, *John Dee: The World of an Elizabethan Magus*, New York, NY: Routledge, 1972, 49.

*Monas Hieroglyphica*.”<sup>146</sup> It is also evident that Francis Bacon was influenced by Roger Bacon as he “characterized Roger Bacon as an exceptional figure...Francis held that Roger Bacon had set aside the scholastic disputations of his age and engaged in the mechanical understanding of the secrets of nature.”<sup>147</sup> Roger Bacon has made major contributions to both the scientific world as well as the world of philosophy and theology because of the room for interpretation in his work. His enigmatic nature deemed historical writers “unable to decide whether Bacon was a religious mystic on the one hand, or an iconoclastic positivist and empiricist on the other.”<sup>148</sup>

Another reason that Roger Bacon is so significant, is because he was likely the first individual in Europe to see the potential of using alchemy and other occult practices and knowledge in Christian learning. This represents the first attempt of a logical person to stray outside of the fence of the church in search for a more practical approach to attaining enlightenment, backed with reasoning, evidence, and observations pertaining to the potential outcome of implementing such practices into the “religious” medieval society of Europe. The church however, as a collective force, prevented any such avenues of research and study to be explored or seriously considered because of their want to control the population in order to secure their own political power and material riches. Bacon believed that alchemy was the key to salvation for humankind, because if everyone attained enlightenment, then in his eyes, humankind would inevitably achieve salvation.

During the 13<sup>th</sup> century, Roger Bacon’s most prominent contemporaries also made studies of alchemy; however, unlike Bacon, they did not fully comprehend the full utility of alchemy, particularly for its spiritual implications. In an attack upon Albertus Magnus, Bacon

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<sup>146</sup> Ibid, 178.

<sup>147</sup> Hackett, "Roger Bacon."

<sup>148</sup> DImperio, M. E. *The Voynich Manuscript*, 49.

claimed that this ‘master knows nothing of the science of perspective, which is necessary in order to know the whole, ‘and therefore, he can know nothing of the wisdom of philosophy’’. Then, Bacon begins to discuss alchemy and states that, “‘Indeed, he who has composed so many and such great volumes on natural matters . . . is ignorant of these fundamentals [of alchemy], and so his building cannot stand’ . . . Thus, one must know the secrets of alchemy in order to complete that edifice of wisdom that is so important for the salvation of man.”<sup>149</sup> This indicates that the only other intellectuals at the time who knew about alchemy, were unaware of its underlying philosophic meaning; proving that unless there existed manuscripts and texts that are now lost or otherwise lying dormant, then Roger Bacon was not only the first intellectual in Europe to recognize the spiritual implications of alchemy, but also the first to propose that it be integrated into Christianity.

Another reason that Bacon is so significant, is because of the astronomical amount of knowledge he possessed in matters concerning the powers of the human mind, which he attempted to correlate with knowledge of the sciences. “Not only was Roger Bacon in advance of his predecessors and his contemporaries in his method of seeking knowledge, he was also far in advance of those who to-day reject the experience of the seven centuries which separate them from him.”<sup>150</sup> Despite this, Bacon is considered by some historians such as Lynn Thorndike to have had no influence in the development of science. In Thorndike’s *A History of Magic and Experimental Science* he stated that, ‘It has yet to be proved that [Bacon] made any definite original contribution to any specific science.’” Even Easton said that Bacon was an “armchair scientist.”<sup>151</sup> However, some historians suggest otherwise, such as in the *Splendor Solis* where it

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<sup>149</sup> Bacon, Roger, and J. S. Brewer. *Opera Quaedam Hactenus Inedita: Vol. I Containing I. Opus Tertium. II. Opus Minus. III. Compendium Philosophiae*. Longman: England, 1859, 37

<sup>150</sup> Little, *Roger Bacon Essays*, 304.

<sup>151</sup> Clegg, *The First Scientist*, 3.

states, “Medieval European alchemists seemed to have added little of practical value to alchemical theories or methods, with a few exceptions. Roger Bacon was the most notable creative mind and the first to propose the inductive method that became fundamental to modern science.”<sup>152</sup> Clegg says Bacon is a “visionary ahead of his time,” and also pointed out that the 800<sup>th</sup> anniversary of Bacon’s birth is around the year 2020 and “the response should not be the half-hearted recognition of a few academics, but something more – much more. It’s time for Roger Bacon to receive the true esteem he deserves as one of the fathers of the modern scientific world.”

Despite the variation of Roger Bacon’s status with historians concerning his scientific thought, most of his contributions are more spiritual than anything else; as the entire goal of his *Opus Majus* was to bring *sapientia* or “wisdom” to Christendom. Bacon found himself struck with “divine inspiration” as a result of the experiences he had from following the philosophy of Hermeticism in practicing what he called “speculative” alchemy. The progression of his journey and its similarities to other individuals throughout history prove that alchemy had the ability to inflict some sort of spiritual effect on its practitioner through the practice of aimed meditation and contemplation done in solitude. Bacon wished to incorporate this knowledge into the teachings of Christianity because he believed that this was the answer to human salvation. Bacon believed that that through revelations given by God, an individual could reach a state of enlightenment. This was done through the perfection of morals in combination with the study of alchemy and the other sciences in the *Opus Majus*. In Bacon’s view, “the exposition of divine

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<sup>152</sup> Henderson and Sherwood, *Transformation of the Psyche*, 14.

truth is made through these sciences. For it is itself unfolded as it were in the palm with these sciences...[and] wisdom is the way to salvation,”<sup>153</sup>

Bacon believed that Christianity was the religion that God intended for humankind however, he believed that by including “pagan” practices, such as alchemy, Christianity would in turn, be a sort of ultimate religion.<sup>154</sup> The reform he wished to see reflects his nature as a devout Christian, as he truly believed that the practice of alchemy along with knowledge of the other “sciences” could lead individuals to salvation by way of an internal illumination brought about by the study of what he called *experimental science*; which was in actuality, an undeveloped version of his explanation into the double-faced practice of alchemy (speculative and operative). Through the practice of alchemy, Bacon believed that a universal state of wisdom could be achieved by the proper moral and intellectual conquests of any individual seeking said wisdom. However, alchemy as a philosophical or spiritual practice was never able to come to fruition in Europe during the Middle Ages because of the power of the Catholic church and the Inquisition. “While culture was flourishing in the Islamic world, Europe experienced hundreds of years of unusually frigid weather, storms, floods, famine, war, plague, and epidemics...” Also not to mention that “more Christians died at the hands of the Church than had died during the persecution by the pagan Romans prior to Constantine’s conversion.”<sup>155</sup> Roger Bacon’s thought was unique for an intellectual of his time, as he was one of the first to understand the deeper spiritual and philosophical elements of alchemy.

The great triumph that Roger Bacon accomplished in writing the *Opus Majus* under the conditions in which he wrote it, stands as his testimony to proving that “divine inspiration” could

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<sup>153</sup> Bacon, *The Opus Majus*, 36.

<sup>154</sup> Power, *Roger Bacon*, 142.

<sup>155</sup> Henderson and Sherwood, *Transformation of the Psyche*, 13.

be systematically discovered and harnessed through what he called *experimental science* or alchemy. As Easton put it, “No other work of the Middle Ages is...quite like the *Opus Majus*, nor has there been one like it since.” He continued to remark that there never *can* be another quite like it because “no one believes now that we shall ever have a universal science that can be known by one man.”<sup>156</sup> However, had Roger Bacon’s *Opus Majus* and companion works been better articulated and perhaps more properly understood, an actual formula for the “philosopher’s stone” may have been extracted from the spaces between the lines of his work. Observing Bacon’s thought through this lens, sheds some light onto the unexplored domains of his complex mind. So much can be said about the sheer brilliance of Roger Bacon’s thought as well as the obvious amount of wisdom he possessed. Bacon’s work in alchemy has been widely misinterpreted and misunderstood; however, Bacon encompassed the personality and character of an individual inspired by a divine intervention through the practice of “spiritual” or philosophical alchemy. This paper’s account of Bacon’s work in alchemy through this perspective brings to the surface only *some* of the mysterious hidden truths of occult sciences, which have attracted the attention of a very wide range of individuals throughout history.

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<sup>156</sup> Easton, *Roger Bacon*, 77.

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