

**Prospero's unsuccessful quest: An alchemist's
struggle for perfection**

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Abstract

There are numerous theories in relation to *The Tempest*, many of them concern its genre. No doubt, the work is written in the dramatic mode. As to its genre, however, it can be viewed as a tragic-comedy as done by Fletcher (1608) or as a romance as done by Dowden (1877). In the first case Prospero is considered a dramatic hero who first suffers serious losses (downward turn of fate in tragedy) then he is rewarded with a second chance to regain what is lost (upward turn of fate in New comedy). In the second case Prospero is a romance hero whose life can be considered a quest which he successfully accomplishes.

Although Prospero is generally recognised as a magician, his association with alchemy is less common. In the light of recent theories of alchemy, the alchemist's ultimate goal is to create the philosopher's stone as well as to reach spiritual purity. These two goals go hand in hand in the Renaissance, a period which can boast with plenty of attempts, but no full success. When examining the text against the background of the double aims of alchemy, Prospero's success becomes questionable. With the help of numbers, geometrical objects and the notions of alchemy, this paper tries to challenge the success of Prospero's quest. As 'Prospero' also means *success*, the question arises whether it is possible that by creating his figure Shakespeare mocks contemporary alchemy.

Introduction

Since the 1950s, when Frank Kermode was still complaining about the “disappointingly little memorable criticism of” *The Tempest* (Kermode 1954, lxxxix) the play has become the focus of much scholarly study. Until then Prospero was generally seen as Shakespeare’s alter-ego, or his literary mouthpiece. He was thought to “reflect the author himself”; especially in light of the Epilogue or, more importantly, in that of the dialogue between Ariel and Prospero (Vaughan & Vaughan, 1999, p. 1). Scholars found support for the alter-ego theory in the passage that is interpreted as Shakespeare’s farewell to writing and the theatre:

[...] I’ll break my staff,
Bury it certain fathoms in the earth,
And deeper than did ever plummet sound
I’ll drown my book. (V, 1, 54-57)

I will argue, however, that this passage is highly ambivalent and it may serve as evidence for a different hypothesis. All the more so, because *The Tempest* is not Shakespeare’s last play; parts of *Two Noble Kinsmen* and *Henry VIII* were still to come (Daniell in Wells 1994, p.119)¹; even if retired to Stratford from London (Schoenbaum in Wells 1994, p 10-11), Shakespeare never stopped writing.

Recently, scholarship has managed to distract itself from allegorical readings, established by the Romantics and popular well into the 20th century. Coupled with the widening of the critical horizon of *The Tempest*, Prospero’s figure at last can be divorced from readings that view him as Shakespeare’s personal allegory. However, when the issue as to what or who may have served as the source or inspiration for Shakespeare when creating this complex character is concerned, there are still several questions left unanswered.

Recent criticism has focused on magic and the use of magic, which, no doubt, appears abundantly throughout the play. In what follows, I continue the investigation in this direction and refer to contemporary, that is, 16th and 17th century parallels in the history of alchemy that may have contributed to the shaping of Prospero’s character. I

¹ Spedding supposes that Shakespeare wrote these plays in collaboration with John Fletcher in 1850.

am especially interested in those aspects that seem to have been deliberately ignored in mainstream criticism, namely, the ones related to alchemy.

I argue that considering the role of alchemy in the plot and thought structure of the play, as well as the possible sources, historical or other, for Prospero's character, a close scrutiny of alchemy is unavoidable. I also argue that there are close parallels between Prospero and historical personages other than Shakespeare, which provides a further challenge to the personal allegory theory.

My argument rests partly on an investigation into the play's genre, since generic considerations will, in fact, form the final pillar that supports my hypothesis coupled with the possible connections between Prospero's fate and alchemy.

The second chapter focuses on Prospero's exile as well as on the different meanings of the tempest. Although scholars tend to concentrate on the initial tempest at the beginning of the play, I claim that it would be a mistake to disregard the possibility that the tempest is more than a natural phenomenon; all the more so because it also displays a duality. The rest of the second chapter focuses on Prospero's tempest-driven sea journey arguing that this voyage, strongly influenced by alchemy, is both physical and spiritual.

The final chapter concludes that despite Prospero's efforts, his intentions and grandiose plan fails to achieve the ultimate goal of alchemic science; thus refuting the so far well praised success oriented genre theories about the play. Finally, I argue that Prospero's deed with his magical tools is not an allegory of Shakespeare abandoning the stage and writing but a contemporary intervention into the debate about alchemy and its ideas.

Chapter one

Prospero, alchemy and genre: Origins and theories

1.1. Prospero's model

Though it may never be possible to identify the model of Prospero for Shakespeare, some contemporary historic figures like Rudolf II, Cornelis Drebbel, John Dee and Edward Kelley should be considered. Robert Grudin, for instance, draws a parallel between Prospero, Rudolf II and Drebbel in his paper *Rudolf II of Prague and Cornelis Drebbel: Shakespearean Archetypes?* (1991). He bases his argument on contemporary remarks and letters, such as Sir Henry Wotton's, a scholar/ambassador, who writes in a letter that "the emperor and his brother Maximilian [sic]² read so much about magic that 'there is no book of that argument left in the Library'" unread (Grudin, 1991, p. 184). In addition, Wotton also points out that because of his excessive interest in reading about magic "the emperor can no longer control even the burghers of his own city" (p. 184). As a result of his negligence, Rudolf was eventually deposed by Matthias. Wotton reports: "they have extorted from the Emperor his consent to make Matthias King of the Romans; [...]" (p. 184)

However, Prospero resembles Rudolf II not only in respect of his political career but in his obsession with magic as well:

Like Rudolf, Shakespeare's Prospero is a reclusive and intellectual monarch whose secret studies (the "liberal arts") isolates him from politics and ultimately cost him his throne. (p. 187)

In a proposition the Archdukes in Vienna described Rudolf II's interest in magic and alchemy, as well as his huge library:

His Majesty is interested only in wizards, alchymists, kabbalists and the like, sparing no expense to find all kinds of treasures, learn secrets and use scandalous ways to harm his enemies... He also has a whole library of magic books. (p. 188)

² The author in my opinion wanted to use the name Matthias, who was Rudolf's brother. Maximilian II was Rudolf and Matthias' father.

The correlation between Prospero and Rudolf II is striking. But could Shakespeare know about the events in Rudolf II's life? Grudin points out that "Rudolf's notable and increasingly notorious career was no secret in London" (p. 183); thus, even if Shakespeare did not have firsthand knowledge about the Emperor's behaviour, it is highly probable that he heard about him from such contemporaries of his as John Donne, or John Fletcher.

Cornelis Drebbel, who arrived in London in about 1605, an inventor, scientist, and a personal protégé of Rudolf II, was so popular that "his perpetual motion machine, on display at the King's House at Eltham, drew lively attention from notable observers, including Francis Bacon, Ben Jonson, Constantijn Huygens, Marin Mersenne, Nicolas de Peiresc, the visiting Prince of 'Wirtemberg' (Wurttemberg), and Thomas Tymme, [...]" (p. 190). Francis Bacon and Ben Jonson were both Shakespeare's contemporaries; the latter was his friend, therefore it does not seem impossible that Shakespeare himself heard of Drebbel and that the scientist may have served as a second model for Prospero's character. Grudin claims:

Like Prospero, Drebbel could (says Van der Woude, the chronicler) create storms, and once made the great Hall of Westminster so cold for his king that "James and his followers took to their heels in hasty flight." (p. 191)

Also, Drebbel's *perpetuum mobile* was a machine believed to incorporate "the power of the four elements" (p. 192) and working as if there was an "imprisoned spirit" within, which provides another striking parallel with *The Tempest*. (In the play Ariel is an imprisoned spirit freed by Prospero.) Grudin concludes: "Prospero, in his attitude towards the four elements, his Paracelsianism, and his skill at producing storms and lifelike illusions, resembles Drebbel more than he does any other Renaissance magus" (p. 195).

In Elizabethan England one could also find outstanding personalities associated with interests similar to those of Rudolf and Drebbel: John Dee and Edward Kelley. Both Dee and Kelley were acknowledged scientists and, what is more important, alchemists. Legends have it that Kelley was able to transmute mercury into pure gold and this success was recorded in Dee's *Spirit Diaries*. Significantly, Dee was among the few alchemists who had a licence for practice after the Crown banned alchemy in the fifteenth century (Mazzeo, 1957, p. 113). In fact, it has been argued that Dee might have served as a model for Prospero (Burns, 2008).

Although the question whether Shakespeare knew the previously mentioned alchemists seems, again, valid, the connection between Dee and Shakespeare has not yet been either revealed or proved. Nevertheless, Shakespeare undoubtedly knew a fellow writer, John Donne, whose poems are crowded with alchemic references, especially *The Anatomie of the World*.

1.2. Alchemy: origin, development and goals

Alchemy is considered as a field of science strongly connected to occultism, magic and transmutation of metals into gold, but for professional alchemists it was about more than creating noble metals:

[...] alchemy appears as a system of philosophy which claimed to penetrate the mystery of life as well as the formation of inanimate substances. Alchemy was thus a complex and indefinite mixture of chemistry, astrology, philosophy, occultism, magic, and other ingredients. (Read, 1933, p. 251)

Working with metals and their transmutation are part of the *job* of alchemists, but The Philosopher's Stone (known also as the Elixir Vitae, or the Grand Magisterium, Magistery, Elixir, and the Red Tincture) represented the most important and final achievement for alchemy.

The complexity of the thought pattern and philosophy of this science has a long tradition that started in ancient Egypt, since Egyptians were known for their skill in chemical sciences, such as metallurgy or glass-tinting. "Egypt, or *Khem*, [...] has often been pictured as the motherland of chemistry." For the Islam world this country became *al Khem* and this name was carried to western cultures as *alchemy* (p. 252). The most important source for Egyptian alchemy was Hermes Trismegistos,³ who was "the alleged father of the Hermetic Art and the patron of its practitioners, the self-styled son of Hermes [...]" (p. 252). Tradition has it that he contributed to alchemy with 36,000 original writings from which the most important one is the Smaragdine Tablet, or Emerald Tablet, of Hermes. This particular tablet is thought to contain the essential principles and secrets of alchemy (p. 252).

³ His name sometimes spelled *Trismegistus*.

Recent studies, however, show that China could have also been the cradle of alchemy because it is from this country that the beliefs of the life-giving properties of material, jade, pearl or even mercury, arose. In the fourth century in the Pao P'u Tzu⁴ three kinds of alchemy were distinguished:

(1) the preparation of a liquid gold, producing longevity; (2) the production of artificial cinnabar, the “life-giving” red pigment, for use in gold- making; (3) transmutation of base metals into gold. (p. 253)

Later Taoists adapted the above ideas, turned them into spiritual doctrines and soon their ideas found their way to Western cultures exercising a huge impact on the thinking pattern of European scientists and alchemists. Because of the second kind of Chinese alchemy, mentioned above, and the various beliefs in the life-giving properties of different materials, the idea of the Philosopher's stone might have derived from China (p. 253).

Alchemy, when seriously practised, has two branches: material and spiritual. Though in ancient cultures the former kind was dominating, in the dogmas of Taoists' trances of spiritual alchemy can also be discovered. The basis for material alchemy is offered by the four elements, sometimes considered as *simple bodies*, the fundament for everything in the universe. Alchemists believed that the elements are transmutable into other substances and they soon figured that besides objects, a human being is transmutable, too. This theory serves as the basis for spiritual alchemy.

Before considering spiritual alchemy, one needs to understand the theory of *prima material*, which states that “The Creation of the world, referred to as the ‘separation,’ was brought about by bringing into action all the potentialities latent in the primary matter” (Mazzeo, 1957, p. 113). Consequently, creation was thought to be the division of the *prima material* into the four major elements: earth, water, air and fire. The process of division (*separatio* or *divisio*) is one of the most important alchemic processes: here the alchemist separates the useful and useless parts of a material to be transmuted. Separation is reached by the alchemic process called *tempest*, “which is the alchemical term for the boiling of the alembic to remove impurities and transform the base metal into purest gold” (Vaughan & Vaughan, 1999, p. 63).

⁴ A book written by Ge Hong, alchemists, who was alleged to have been interested in the Daoist cult of physical immortality.

Although early alchemists attempted to create gold from other metals, “[...] to transforme any kind of mettall into another [...]” (Read, 1933, p. 258), as time passed, a philosophy of alchemy took shape, which, eventually, led to a change in its goals also; soon “The worldly-minded seekers after gold, sometimes disdainfully known as ‘souffleurs,’ or ‘puffers,’ were regarded as ‘outsiders’ by the alchemical *cognoscenti*” (p. 260).

The original description about the creation of the Stone can be found on the Emerald Tablet of Hermes:

What is below is like that which is above, and what is above is like that which is below, to accomplish the miracles of one thing; and as all things were produced by the one word of one Being, so all things were produced from this one thing by adaptation. (p. 260)

This excerpt resembles to what Paracelsus called division of the elements in the creation. Additionally, the other important part is “Possibly the union of ‘the powers of things superior and inferior,’ denoted in the eighth precept of Hermes” (p. 260), which leads to the conclusion that the Philosopher’s Stone is coming to be slowly identified with the Elixir of life or Quintessence, a substance every alchemist is looking for. As in the Hermetic tradition, the Paracelsians also believe that for the creation of the Elixir or Quintessence, or *medicine of metals* and man, unity is indispensable.

The Quintessence is not part of the four elements, but is viewed as a fifth one, a pure and incorruptible substance residing in the very core of every living being and “is a certain matter extracted from all things which nature has produced, and from everything which has life corporally in itself [...]” (Mazzeo, 1957, p. 115). It is extracted from the elements, which are purified by various alchemic procedures⁵ and united into a superior element, the Quintessence. However,

[...] the quintessence cannot be extracted from the flesh or the blood of man: for this reason, that the spirit of life, which is also the spirit of virtue, dies, and life exists in the soul, not in the material substance. (p. 115)

⁵ The limitation of this paper does not allow to list all the alchemic procedures used to create either gold or the Quintessence. For this reason only the ones will be considered that are important for the present study.

Therefore, the fact that the extraction of the Quintessence would result in killing a human being was a critical issue for alchemists.

Furthermore, if the substance to be transmuted is not clean, the transmutation will fail, since “what is to be transmuted or healed must be ‘pure’ or ‘She,’ otherwise virtue as the elixir will only be able to gild and not transform it” (p. 116). Therefore, purification is indispensable for an alchemic process just as it is vital in *The Tempest* to Prospero’s life.

In spiritual alchemy “[...] the process of breaking down and reorganizing metals in order to purify them echoes the spiritual purification of the soul by the divine alchemist” (Shrieves, 2010, p 278). The alchemic transformation of the self is similar to that of material alchemy; however, the ultimate goal here is to reach spiritual transcendence. A pure soul is considered essential, because it was a “belief that preparation of the Philosophers’ Stone included the spiritual preparation of the alchemist himself” (p 278). An alchemist has to prepare himself before creating the Elixir, because, if one of the ingredients is impure, the alchemic process will fail. Small wonder that only a few could reach spiritual purity and, in England, it seems that Edward Kelley was successful enough to create the Elixir. However, spiritual alchemy is not only difficult to reach owing to the impurity of the self, but also because the instructions are conveyed in a secret language that are said to have been disguised in numbers, figures and riddles to protect it from becoming a “commonplace knowledge” or to prevent the unworthy from understanding it (p. 285).

The transformation of the soul is, according to Edward Howes⁶, a “*Perpet[ua] motus*,” a continuous practice at the end of which the alchemist will be able to Square the Circle both in a geometrical and an alchemic sense, which is the “transformation of the four conflicting elements into the quintessence, the completion of the alchemical opus itself” (p. 286). In order to do so, Howes suggests, one must know himself and has to stick to the “Centre of Truth [, because] [k]nowing is a revelatory experience coming entirely from an internal apprehension of the divine, ideally with no consideration to the deceptive information provided by the senses” (p 286). Finally, “Howes suggests that his friend must know his own centre and be a ‘good Geometrician’” (p 287).

Throughout the centuries alchemy developed into a complex system of philosophical thought that dealt both with the transformation of metals and the search

⁶ John Wintrop, Jr. and Edward Howes were both interested in spiritual alchemy and they communicated with each other via letters.

for the Elixir for physical as well as spiritual purposes. In *The Tempest* Prospero's fate and journey are strongly connected to alchemy on both material and spiritual levels. Thus, the protagonist's actions and fate can be viewed and explained from yet another perspective compared to previous genre based theories.

1.3. Questions of the genre:

Since the time of its production, the genre of *The Tempest* has always been a matter of debate; even if in the first Folio it is clearly classified as a comedy. Considering the direction of the *peripeteia* in its plot structure, it indeed ends like comedies do, that is, with an upward turn of fate. At the same time, the main character's life contains events commonly presented in tragedies. When trying to define a work that "wants deaths, which is enough to make it no tragedy, yet brings some near it, which is enough to make it no comedy" (1608) John Fletcher's coinage tragic-comedy a term frequently used to label *The Tempest*, seems apt.

Aristotle proposes in his *Poetics* that "the sequence of events, according to the law of probability or necessity, will admit of a change from bad fortune to good or from good fortune to bad" (1998, p. 16). Although he does not offer an in-depth analysis of comedy, Aristotle states that in a tragedy: "The change of fortune should be not from bad to good, but, reversely, from good to bad" (p. 23). Consequently, tragedy may be understood to present the downfall, whilst comedy the rise of the protagonist.

Assuming a metaphorical relationship between the plot (*muthos*) and thought structure (*dianoia*) of dramatic works, Éva Bús argues in her *Metaphor in Theory and Practice* (2008) that "the plot of tragedy is possible to conceive of as imitating a downward turn or fall, while that of new comedy produces a rising movement [...]" (p. 126). She also claims that "[...] the plot structure of tragedy and comedy seems to run along a full circle expressing what might be declared to be a fundamental impression of human life: it is fraught with ups and downs, happiness and unhappiness" (p. 126). Representing the circularity of human life in a tragic-comedy the protagonist at first goes through the afflictions of a tragic hero and suffers immense losses, but then his fate makes an upward turn as does that of a comic hero.⁷ (See also McDonald, p. 95)

⁷ "The main characters must endure a series of hazards and trials that lead ultimately to success and reward. The form is given to extremes, for the ending is not only happy but joyous, even revelatory, and

Approaching the play from another perspective, Debora Schwartz lists a number of characteristic features that liken *Pericles*, *Cymbeline*, *The Winter's Tale* and *The Tempest* to the genre of the romance.⁸ She points out that a romance “acknowledges evil” and so emphasizes the “reality of human suffering “while displaying” a sense of simultaneity and harmony” as well as “forgiveness” (Schwartz, *The Romances*).

An essential component in this conception of romance is time: the protagonist of a dramatized romance is very often a mature, or middle aged person; moreover, in the case of *The Tempest* time is one of the main moving forces as Prospero has to carry out his plan punctually. Furthermore, David Fuller points out that:

Nevertheless, there are typical features: characters on a larger-than-life, heroic scale, often exemplifying extremes of virtue or vice; a quest (trial, test) – erotic, chivalric, both, or neither – which is almost always successful, and so (in keeping with the general heightening) leads to a state of ideal fulfilment in love, or of peace and justice in the social order, [...] (2004)

Both in a romance and tragic-comedy the ultimate stress usually falls upon the success or triumph of the protagonist and on a happy ending; moreover, they display a circular movement in human life.

However, the success and triumph components of the theory of tragic-comedy and romance are not (fully and) seamlessly applicable to *The Tempest*. In the following chapters I attempt to reconsider the genre of the play by investigating Prospero's quest, success and alchemic practices.

the progression to that ending is much more arduous than in traditional comedy” (McDonald, 2001, p. 95).

⁸ The ‘romance’ existed and was used at the beginning of the 17th century to define dramatic works possibly created in the hope to revive romantic comedy. These works show thematic kinship to the tradition of Spenser's *Faerie Queene* and often “exploit [...] the pastoral situation for comment upon the theme of the contrast between nature and nurture” (Kermode 1954, lx).

Chapter two

Duality – alchemy and *tempest*

The title of *The Tempest* itself conveys the possible meaning of the word as ‘storm’ and the alchemic process of boiling and separation. Their significance and how they connect to the structure of the play will be considered in this chapter thoroughly. Prospero’s purification will be a path leading to the understanding of alchemy. His purification has three phases and one of them commences before he arrives in the island. This duality (alchemic and non-alchemical) stretches across the entire play and by examining each of them it will be possible to explain the nature of the occurring events. Moreover, they will help to understand how and why Prospero ends up on the island and whence his initial storm.

2.1. Political knowledge and alchemic exile:

The Tempest opens with a sea-storm created by Prospero, who is standing on the strand. However, this initial storm is not the only one in the play; in chronological terms three other storms precede it.

Back in Milan Prospero is a reputed duke, “a prince of power” (I, 2, 55; 73 – 74), but from a political point of view he is negligent because he put his brother Antonio in charge while studying for his own pleasure:

The government I cast upon my brother
And to my state grew stranger, being transported
And rapt in secret studies. (I, 2, 75 – 77)

He even admits his negligence by stating: “I thus neglecting worldly ends, all dedicated / To closeness and the bettering of my mind” (I, 2, 89 – 90). Prospero’s withdrawal creates the first storm, a political one, because although he puts Antonio in charge Prospero remains the official duke, so his brother, Antonio does not have real political

power. Realising it, Antonio persuades a lot of his brother's subjects to be loyal to him and takes control over:

Being once perfected how to grant suits,
How to deny them, who t'advance and who
To trash for overtopping, new created
The creatures that were mine, I say, or changed 'em,
Or else new formed 'em; having both the key
Of officer and office, set all hearts i'th' state
To what tune pleased his ear (I, 2, 79 – 85)

Antonio's betrayal is politically driven modelled upon Niccolo Machiavelli's *Il Principe*, a philosophical work on a good ruler, and what a person in a powerful position has to do if he wants to keep his power.

Although some of Shakespeare's characters display characteristics of what may be typical of a Machiavellian ruler, *Richard III*, Edmund in *King Lear*, Claudius in *Hamlet*, even today it is still debated whether Shakespeare had firsthand reading experience of this text. The main problem is that the data related to this topic are controversial. Nevertheless, Mario Praz maintains that since "Shakespeare may have had frequent occasions to meet Italian merchants [...] it is today well established that Shakespeare must have come across, at least, John Florio, the apostle of Italian culture in England" (p. 11). Although Shakespeare probably did not read *The Prince*, first published in English in 1640, John Florio could have provided information on this topic. Moreover, it seems that Machiavellism was an essential element in the Elizabethan theatre in England especially for Shakespeare and Marlowe. (Grandy, 2002, p. 43) Therefore, it is plausible that Shakespeare used Machiavellistic ideas in his plays, especially in his first historical tetralogy.⁹

In fact, Prospero's mistake is that he neglects his duties and goes against Machiavelli's advice according to which a ruler has to set a good example by immersing in state affairs (Machiavelli, 2001, p. 108). Prospero, though, indirectly, violates the above principle; therefore, Antonio's betrayal should not be evaluated as an unexpected consequence.

⁹ "[...] my argument here is that Shakespeare's first historical tetralogy, along with other plays written in the earlier 1590s, makes use of the 'evil' or lurid image of Machiavelli [...]" (p. 44)

Prospero does not seem to display an awareness of the theory of politics; more importantly, he does not know his brother at all. He is very proud of his books and his vast knowledge: “my library / Was dukedom large enough” (I, 2, 109 – 110); however, his knowledge is far from being complete. The political storm, which develops because of Prospero’s negligence changes everyone’s life: Antonio becomes the duke, Prospero and Miranda are exiled; thus the storm is a transforming force. Moreover, it acts as a catalyst because three other storms follow it during the play from among which two are natural phenomena.

Prospero’s exile seems all the way peculiar because he does nothing to prevent it even after years of studying. The first reason why he cannot use his knowledge seems to be non-alchemic. Prospero himself says that he is “being transported / And rapt in secret studies” (I, 2, 76-77).¹⁰ Apparently, he is a possession of an enormous amount of knowledge but he is unable to put it to use. Seemingly the reason as to why he never uses his knowledge is that it is not a real one, or at least it is imperfect.

In a Platonic dialogue, *Theaetetus*, also accessible for renaissance philosophers, Socrates and Theaetetus define three kinds of knowledge: knowledge as perception, knowledge as true judgement and knowledge as true judgement accompanied by discourse. Theaetetus claims that “a man who knows a thing “perceives” the thing he knows” (Taylor, 1955, p. 325). Socrates challenges this definition by asking “whether when we *hear* foreigners speaking their own language we also *know* ‘what they are saying,’ or whether when a person who cannot read sees a written page he *knows* what is written on” (Taylor, 1955, p. 331). The answer here “is that in such a case one does know what one actually hears or sees [...] but one does not know the *meaning* of the foreign vocables or the written words” (p. 331). Later Socrates claims that “eyes, ears, and the rest of the body are not the agents in perception, but the *implements* of it” (p. 331). Shapes, colours, smells or pictures are channelled through the eyes, ears or skin, but “the ultimate categories, like those of ‘fact,’ are apprehended by thought, not by sense.” Therefore “‘knowledge’ is not to be sought for in the affections of our sensibility, but in the mind’s reflection upon them” (338 - 339).

In accord with the above Prospero does not only make a mistake by neglecting his duties as a duke, but also by thinking that he is able to apprehend alchemic knowledge only by reading hundreds of books. In addition, texts on alchemy were

¹⁰ In the Arden Shakespeare the meaning of this line is explained as he was “enraptured by his studies, especially of magical (*secret*) matters” (Vaughan & Vaughan, 1999, p. 154).

coded¹¹; thus Prospero may exemplify Theaetetus's claim of not knowing "the *meaning* of the foreign vocables or the written words."

After the goal of alchemy becomes to create the Elixir and to reach spiritual transcendence, scientists seek to conceal their results: "alchemists did not tend to write extensively about what they were doing, unless it was for a patron whose support they were trying to attract" (p. 334). They prevent others from misusing or taking an advantage of alchemy; therefore, their texts are "obscured by numbers, figures, and riddles." Those who do not have extensive knowledge on these subjects do not know how to understand the text and those who are not members of an alchemic society are not able to access any information.

Thus, Prospero is unable to use his alchemic, or magical, knowledge, first, because it is impossible to extract knowledge from books only by reading them. Second, alchemic knowledge is hidden; consequently, it is unlikely that he understands most of the instructions. The use of *most of them* seems appropriate since later it turns out that – mainly because he was a well-read person – Prospero can understand to a certain degree the texts he reads in Milan.¹²

All the above lead to Prospero and Miranda's exile. They are carried to a barge and left to die at sea, and if it had not been for Gonzalo, who supplies them with water, food and tools, they would never have survived. His intervention brings a traditional romance device to mind: as Howard Felperin puts it, the genre is recognizable by featuring in its plot overcoming "against impossible odds or by miraculous means" (Richard & Knowles, 1998, p. 10). Miraculous survivals are typical part of a romance's plot; in *The Tempest* the *miracle* is Gonzalo's aid itself. Samuel Coleridge has the following argument:

The romance opens with a busy scene admirably appropriate to the kind of drama, and giving, as it were, the key-note to the whole harmony. It prepares and initiates the excitement required for the entire piece, [...]. (Foakes, 1987, p. 269)

Apparently, by "busy scene" Coleridge means the initial political/alchemy-driven storm that works as a catalyst for the forthcoming chain of events. It carries Prospero to a quest during which he will have a second chance to correct his mistakes and to learn magic and alchemy properly. This very first storm can be seen as an alchemic reaction called separation or *tempest*. From Milan's point of view, Prospero is the *polluted* part,

¹¹ See Nummedal p. 333

¹² I will return to this hypothesis when discussing Prospero's life on the island.

because he neglects his duties as a Duke and becomes a burden for the city. Soon after Prospero arrives in the island, his quest (romance) and an upward movement of his fate (tragic-comedy) begins. But before that he has to go through a tempestuous voyage at sea.

2.2. Passion-liberating tempest

The tempest as a notion and image penetrates the play and seems to determine and change the characters' fate and lives. Besides being an archetype, a symbolical "recurring image" (Frye, 1971)¹³ associated in Western culture with fate events, it can also be seen as a catalyst that sets events in motion and somehow forces Prospero to start his quest. If it is understood as a storm (within or without), it destroys the previous order upon which a new one can be established. At the same time, it can be seen as an alchemic reaction which in fact never departs from the understanding of the tempest as a storm: alchemy appears to continue the work started by the previous storms.

The miraculous survival of Prospero and Miranda is part of a romantic quest, which gives the protagonist a second chance for correction. In Prospero's case the opportunity for correction is accompanied by a dreadful, but purifying sea-journey that changes him significantly. The importance of Prospero's transformation lies in alchemy and its doctrines.

For alchemists "the fundamental physical theory of alchemy was that of the Four Elements, or "simple bodies." In every substance and organism these elements were thought to be present and soon the theory of the four elements transformed into an abstract theory: "Briefly, the theory postulated the existence, as abstract entities, of four elementary properties or qualities of bodies: these were the hot, the cold, the moist, and the dry" (Read, 1933, p. 255). The association of the four elements with their physical properties soon led to theories among Greek philosophers, which were then borrowed and improved by Renaissance philosophers and alchemists. A most influential one is based on Hippocrates's humour one: "man is thought of as a little world, comprising in himself all the elements that go to the making of the great world. These elements are four: fire, air, water, earth. Fire is hot and dry, air is hot and moist, water is cold and

¹³ I used an online version of Frye's *Anatomy of Criticism*.

moist, earth is cold and dry” (Campbell, 1933, p. 52). Since these elements are all present in a human body, Renaissance philosophers agree that the four body fluids resemble the four elements. These four body fluids are

all existing in the blood: blood,¹⁴ choler, phlegm, and melancholy. Blood, like air, is hot and moist; it is also sweet to the taste. Choler, like fire, is hot and dry; it is a bitter to the taste. Phlegm, like water, is cold and moist; it is unsavoury and tasteless like water also. Melancholy, like earth, is cold and dry; it is sharp, ‘eigre’, or tart to the taste. (Campbell, 1959, p. 52 – 53)

Thus, humans are like a miniature universe and as in the case of the universe balance and unity are crucial within the human body. Although the humours are supposed to be in equilibrium, they often lose their proportion usually caused by passion: Prospero’s passion for his books tips the humours out of their balance within him.

The Renaissance theory dealing with human duality (body and soul) states that a human soul can be divided into three sub-parts: vegetative soul, sensible soul and rational soul.¹⁵ The sensible soul “both knows and desires [...]” (Campbell, 1959, p. 66). The knowing part contains the five senses and with their help the brain can process information. “The desiring part of the sensible soul, the appetitive part has two parts or faculties: the concupiscible or desiring power and the irascible power which inflames the blood, [...]” (p. 66). Therefore, “it is in this appetitive part of the soul that the passions reside” (p. 68). The sensible and rational souls are always in conflict; thus, when a passion takes over the human mind, it is the sensible soul which overcomes the rational one, which causes the appearance of a passion called “melancholy adust. “Now if for some reason the humours are subjected to excessive heat, there results an unnatural humour [...]. This unnatural humour is generally referred to as melancholy adust” (p. 75). The excessive heat can be anything like anger, love, lust, etc., that is able to change human thinking creating, the melancholy adust which “raiseth the greatest tempest of perturbations and most of all destroyeth the brain with all his faculties, [...]” (p. 76). On the one hand, it seems that Shakespeare uses the double (storm without and within) meaning of the tempest deliberately.¹⁶ On the other hand, Prospero’s passion

¹⁴ This is the former name of the sanguine body fluid.

¹⁵ Each of the souls can be further divided, but only the sensible soul’s parts will be considered here as there is no space to discuss the others.

¹⁶ This double sense of the storm also appears in *King Lear*: “Thou think’st ‘tis much that this contentious storm / Invades us to the skin: so ‘tis to thee; / But where the greater malady is fix’d,

towards his books and study results in his loss of rational judgment completely; his neglect of duties as a Duke, in turn, leads to the first political storm. Consequently, on his quest Prospero has to control this passion.

The other passion Prospero has to deal with is anger originating in Antonio's betrayal. It seems that Prospero's anger does not arise because of Antonio's betrayal but because of his disloyalty as a brother: "[...] he, whom next thyself / Of all the world I loved" (I, 2, 68 – 69). His grievance thus may be rooted in the fact that Prospero has only Antonio and Miranda as kin.¹⁷

Prospero and Miranda's sea-journey to the island can be understood as the continuation of the alchemic reaction starting with Antonio's betrayal. The *tempest* as a purifying alchemic reaction is applicable both in the case of material and spiritual alchemy.

As alchemy promises that humans might change corruptible matter into incorruptible, mathematics leads to contemplation of spiritual geometry –both of which are suggested by the 'perpetual motion' of 'squaring the circle', a concept in which the alchemic and mathematical quests intersect. Both disciplines may serve as an avenue to spiritual transcendence. (Shrieves, 2010, p. 287)

The Squaring of the Circle¹⁸ is the final goal in alchemy, but while creating the Elixir the alchemist has to reach spiritual transcendence and it can hardly be achieved if one has passions similar to Prospero's. Therefore, before trying to start Squaring the Circle within himself and attempting to create the Elixir, Prospero has to get rid of at least one of his passions - which he supposedly does during his voyage at sea. The roaring sea resembles the boiling water in the alembic and to the process called *tempest*:

There they hoist us
To cry to th' sea that roared to us, to sigh
To th' winds, whose pity, sighing back again,
Did us but loving wrong. (I, 2, 148 – 151)

The lesser is scarce felt. Thou'ldst shun a bear; / But if thy flight lay toward the raging sea, / Thou'ldst meet the bear i' the mouth. When the / mind's free, The body's delicate: the tempest in my mind (III, 4).

¹⁷ In *The Arden Shakespeare* it is stated that "presumably Prospero's wife dies giving birth to Miranda or soon after, thus leaving him with a daughter and brother as closest kin" (Vaughan & Vaughan, 1999, p. 154).

¹⁸ The importance of squaring the circle and how it is connected to the argument will be considered in the last chapter.

The passion from which he seems to liberate himself is the one felt for his books. Since, it prevents him from addressing political issues and practicing¹⁹ his knowledge, this passion is as harmful as the one connected to anger. Because of the transmutation of the humours in his body by the time Prospero arrives on the island, he is able to concentrate his knowledge and transform it into a practical one - as a result he manages to free Ariel and begin his twelve-year-long quest and study.

2.3. The island of knowledge and transformation

The first success Prospero achieves is that he defeats Sycorax's magic by subjugating Caliban, her son, and by setting Ariel free. The knowledge Prospero collects in Milan is seemingly enough to set the spirit free; however, he has to learn more. In this case, setting Ariel free is a fundamentally smart decision: on the one hand, he will be the mentor providing Prospero with information as to how to understand alchemic texts and how to use them properly, and, on the other hand, Ariel can also be conceived of as a part of Prospero. In order to support this proposition a Renaissance idea in relation to the humour theory, namely that of the tripartite soul, has to be considered in connection with Ariel, Prospero and Caliban to provide another, non-alchemic explanation of Prospero's failure in his studies.

The soul can be divided into three parts: the vegetative, sensible and rational. James E. Phillips discusses the similarity between these three parts and the three main character types: "Neither Critic, however, nor any other that I know of, has observed the striking similarity between the functions of Prospero, Ariel, Caliban in the play and the functions of the three parts of the soul [...]" (1964, p. 148). In this reading Prospero resembles the rational soul, Ariel the sensible and Caliban the vegetative one. The vegetative or quickening soul is responsible for "nourishment, growth, elimination, reproduction, and the other instinctive physiological processes, often referred to as the 'housekeeper of the body,' charged with supplying the basic needs, [...]" (p. 148) The sensible or sensitive soul

¹⁹ He only turns his little theoretical knowledge into a practical one on the island.

includes the faculty of knowing, in the sense of perceiving and apprehending, and the faculty of moving, in the sense of physical and emotional activity alike. The faculty of knowing includes, in turn, the activities of the five senses, and the activities of common sense, imagination or fantasy, and memory. (p. 148-149)

The rational soul

draws conclusions regarding truth and falsehood, good and evil; in other words, it is capable of judgment. The reason determines what is good and what is evil and informs the will of its conclusion. (p. 149)

If the human soul works as intended, the “vegetative soul keeps the organism running,” the “knowing power of the sensible soul collects” data of the world through the five senses and it directs information to the rational soul. Then the rational soul “proceeds to evaluate it” and sends back to the moving part of the sensible soul and it will “provide the appropriate emotional response” or it moves the appropriate muscles (p. 149).

When Prospero is in Milan, he reads a lot of books from which he cannot distil true knowledge (knowledge is not perception), first, because knowledge cannot be accumulated by reading alone (non-alchemic layer), and, second, because the perceptive part of his soul is locked away. Thus by accepting the tripartite soul theory, it is clear that Prospero’s sensible part of the soul is still immobilized, as Ariel is locked in a pine tree. Prospero locks himself away too, and thus the two parts of the soul are unable to communicate. Therefore, the information Prospero perceives is incomplete and distorted. When on the island, he gets close to the sensible part of his soul and succeeds in freeing it; thus, he frees himself from restraints too. From that moment on, he is able to start learning.²⁰ However, the question arises whether Prospero is able to reach true knowledge after he sets Ariel free.

According to the second definition in *Theaetetus*, knowledge lies in true judgement, or belief. If there is a true judgement, as Socrates says, then there must also be false judgement: “If you do know, you cannot judge falsely; and if you do not, you cannot make any judgement at all, because your mind is a mere blank about that of which you ‘know nothing’”. Moreover, “false judgement is the belief in what is not”

²⁰ The miraculous survival of Prospero and Miranda owes a lot to Gonzalo, but the fact that the ex-Duke can continue his studies is also Gonzalo’s merit, since he supplies Prospero with books.

Moreover, when Prospero says to Ariel “To do me business in the veins o’th’ earth /When it is baked with frost.” (I, 2, 255-56), “he is associated with the fourth element, earth” (p. 162). Prospero himself associates Caliban with the element Earth by “Thou earth, thou: speak!” (I, 2, 315) and in the person of Prospero and Miranda the other two elements are also present on the island.

According to Greek philosophy the element Water “is associated with the Phlegmatic humour of phlegm” and the person who is the representation of this element or humour “tends to in touch with their feelings” and these people “tend to be flowing and flexible, letting their feelings guide them, and oriented toward emotional harmony” (Working with the Elements). Miranda is a perfect representation of these elements:

MIRANDA

If by your art, my dearest father, you have
Put the wild waters in this roar, allay them.
O, the cry did knock
Against my very heart! Poor souls, they perished. (I, 2,)

Her words and reactions suggest that she is guided by her feeling; thus she represents the element of Water.

Prospero is passionate, hot-headed and energetic, often guided by his anger associated with fire. “Fire is associated with the Choleric humor of yellow bile [...]” and “Aristotle would say the Choleric force is hot and dry. Choleric people therefore tend to be energetic, active, moving, “on-fire”, and enthusiastic.” (Working with the Elements)

MIRANDA

Beseech you, father -

PROSPERO

Hence; hang not on my garments.

MIRANDA

Sir, have pity;

I'll be his surety.

PROSPERO

Silence! One word more

Shall make me chide thee, if not hate thee. (I, 2, 474-77)

Prospero does not even allow his child to interfere with his business. The manner with which he carries out his plan shows that he is energetic with a keen intellect, thus he embodies the element of Fire.

Chapter three

A questionable experiment

3.1. Success ... or is it?

By the time Antonio and the others arrive, Prospero has already accomplished his quest. He has seemingly become an alchemist and a magician, and has made up for his imperfect knowledge about the art and duty of ruling. Prospero, in fact, consciously prepares the island for the alchemic experiment in which he intends to involve most of the crew from the ship.²¹ After freeing Ariel from his prison and subjugating the island Prospero could start preparing the experiment in which the island, resembling a circle, thus emphasising its mystical and spiritual nature, plays an essential role.

The nature and meaning of the circle can be explained as follows: “it is a symbol of fullness and totality; like an infinite line it is time and infinitude, the eternal and the One at once. It expresses endless recurrence and the cyclical world view”²² (Pál & Újváry, 2005, p. 293). Moreover, the number, which is strongly connected to circles is number 12, since it is the “basis for the division of time and space; this is indicated by the twelve based numerical system used for the measurement of time (e.g.: twelve months, twenty-four hours). It is the number of wholeness, universality and connection”²³ (p. 477). The nature and meaning of the circle, number twelve, and the fact that this play can be classified both as romance and tragic-comedy underline that Prospero has to go through his twelve-year quest to reach spiritual cleanliness, so that he could go back to Milan as a different person, an able ruler, and a qualified alchemist.

Besides number twelve, which is basically Prospero’s past and present, there is another element and its geometric counterpart to be considered: number four and the square. As in the case of the meanings of twelve and the circle, those of number four and the square also stand very close to one another. The meaning of number four is rooted in ancient symbolism. Numerology explains it as the

²¹ By crew I mean Antonio and the others, excluding the mariners.

²² My translation: “A teljesség, az egész szimbóluma; mint végtelen vonal egyszerre az idő és a végtelenség, az örök és az Egy. Az örök visszatérés, a ciklikus világszemlélet kifejezője.”

²³ My translation: “Az idő és a tér felosztásának alapja; ezt jelzi a tizenkettes számrendszeren alapuló időmérés is (pl. tizenkét hónap, huszonnégy óra). A teljesség, az egyetemesség és az összetartozás száma.”

number of the cosmic wholeness and perfection's development. It is the symbol of the stable world; its geometric counterpart is the square. [...] Four represents the completeness of the created, material world (elements, points of the compass, seasons). It marks the coordinates of time and space. There are numerous geometric symbols that are in connection with the meaning of number four as completeness (square, cross, swastika).²⁴ (Pál & Újváry, 2005, p. 351)

At the same time "Square is the universe, its four angles are the four elements. [...] The square shape represents time, thus it expresses finitude. That is square is the perfection of heavens on earth, in the material world"²⁵ (p. 352).

Putting numbers aside for a moment, another aspect of the circle and the square has to be considered. The circle is very often considered as the symbol of the human soul and the square as that of the human body. Renaissance philosophers studying the human being introduce the notion of "human duality," which states that a human being is made up of a soul and a body. Leonardo da Vinci finds great pleasure in solving the geometric and alchemic problem of squaring the circle.²⁶ In his study, *The Vitruvian man*, he solves this issue by drawing a man inside a circle and a square, which is to indicate the Squaring of the Circle. However, based on previous reasoning it seems that this solution is not only geometrical, but also a spiritual one as the square, indicating the human body, and the circle, referring to the soul, are brought together in harmony. Prospero is able to create this harmony on the island with the help of the four elements represented by the four being living there. By the time Antonio arrives, the twelve years have finally passed, thus the Squaring of the Circle has finally taken place.

The initial storm may be an illustration of Prospero's reaching his full potential as a magician as well as an alchemist and a ruler. He states:

By accident most strange, bountiful fortune
(Now, my dear lady) hath mine enemies
Brought to this shore; (I, 2, 178 – 180)

²⁴My translation: "A kozmikus teljesség és tökéletesség teljes kifejlődésének a száma. A stabil világ szimbóluma; geometriai megfelelője a négyzet. [...] a négy a teremtett, az anyagi világ teljességére utal (elemek, égtájak, évszakok). Az idő és tér koordinátáit jelöli ki. Számos geometrikus szimbólum összefüggésben áll a négyes szám 'teljesség' jelentésével (pl. a négyzet, a kereszt, a szvasztika/horogkereszt)."

²⁵My translation: "A négyzet a világmindenség, négy sarka a négy elem. [...]A négyszögletű forma az időhöz tartozik, így a végesség kifejezője. A négyszög tehát nem más, mint az égi szféra tökéletessége a földön, az anyag világában."

²⁶ See Shrieves, p. 285.

Furthermore, Miranda's description on the storm further supports the above idea:

MIRANDA

If by your art, my dearest father, you have
 Put the wild waters in this roar, allay them.
 The sky, it seems, would pour down stinking pitch
 But that the sea, mounting to th' welkin's cheek,
 Dashes the fire out. O, I have suffered
 With those that I saw suffer - a brave vessel
 (Who had no doubt some noble creature in her)
 Dashed all to pieces. O, the cry did knock
 Against my very heart! Poor souls, they perished.
 Had I been any god of power, I would
 Have sunk the sea within the earth or ere
 It should the good ship so have swallowed and
 The fraughting souls within her. (I, 2, 1-13)

This storm is the first and most important part of the *tempest*, when Prospero boils the water, initiating his alchemic experiment. Looking at the above passage all the elements can be counted: The roaring sea stands for Water and Air (but the sky can also stand for Air), the presence of Fire is obvious, and Miranda mentions earth as well. Moreover, the fifth element, the quintessence, is present as well as "fraughting souls." Consequently, the storm is considered as an alchemic reaction as well as a proof that Prospero has reached the highest form of knowledge in Socratic terms.

The first two kinds of knowledge are clever guesses by Theaetetus, but they are not the definitions Socrates is looking for. Eventually Theaetetus completes his idea by saying that knowledge is true judgement accompanied by discourse. Difference must be made between simple apprehension and "apprehension attended by discourse." This leads to a doctrine that claims 'complex enunciation,' or proposition is the unit of knowledge, [...]" (Taylor, 1955, p. 345). In connection with complexity, Socrates points out that "the 'letters' can be simply apprehended and named, but we can say nothing about them," and that only "'syllables,' complexes, can have discourse." These complexes that are "composed of [...] letters have a discourse, since you can analyse the complex back into its simple constituents, just as you can spell a syllable. The complexes then are 'knowable and rational', but their elements are not;" that is we can say that "knowledge, 'grounded belief,' is always of the complex." In the second and final definition of this kind of knowledge Socrates asks a question: Is it possible that "a true judgement about a thing becomes knowledge when you add to it the discourse

which indicates the character which distinguishes that thing from every other thing? Is knowledge a true judgement accompanied by a statement of the differentia of the subject of the judgement?" The answer is that "knowledge is true judgement plus knowledge of the differentia" (p. 345 – 347).

Seemingly, only by apprehension Prospero is unable to learn anything; furthermore, Ariel's, that is his sensible soul's incapability of movement prevents Prospero from grasping the information from his books, and finally he only deals with "secret studies." In other words, by acquiring only one field of knowledge (alchemic studies in Prospero's case) true *episteme* cannot be reached, because knowledge is about knowing the *differentia*, that is, the difference between types of knowledge. In Milan Prospero only practices "secret studies;" no real knowledge can be attained in this way. It is on the island that Prospero comes to know the aspects of alchemy and the art of ruling while controlling his first subjects: Ariel, Caliban and Miranda.

Finally, Prospero bursts out in anger and emotions for the last time in the initial tempest, which thus completes his alchemic purification.²⁷ This idea is supported by Prospero's question to Ariel: "But are they, Ariel, safe?" (I, 2, 217). Clearly, Prospero seems to manage to calm his inner tempest, and now he can concentrate on the alchemic experiment he started with the tempest.

3.2. Cruces:

Prospero separates the ship's crew and places them on different parts of the island. By separating them Prospero will be able to provide personal purification journeys for each of them. Separation and unity are the most important parts of alchemy, thus before gathering everyone at the same place Prospero needs to purify the *ingredients* of the Elixir, for the intentional making of which there are a couple of evidence.

Counting the human beings on the island, including Caliban, since he is partly human, we receive twelve as the sum,²⁸ which fulfils the meaning of number twelve: wholeness and unity. Furthermore, number twelve strengthens the idea of spirituality, which is a crucial element for the creation process of the Elixir. Therefore, first, the

²⁷ The second part of his purification was the longest: Prospero managed to handle his feeling throughout the past twelve years.

²⁸ Ariel was left out as he is an air spirit, not a human being.

number of human beings on the island represents the divinity of Prospero's power,²⁹ and second, it carries a hidden meaning: a desire and want for perfection. That may be a possible reason why he does not kill anyone on the ship and does not let anyone die on the island either.

ARIEL

My master through his art foresees the danger
That you, his friend, are in, and sends me forth
(For else his project dies) to keep them living. (II, 1, 298-300)

As Vaughan argues "Ariel turns to the audience and here refers to both Gonzalo and Alonso, who must be kept alive if Prospero's plan is to succeed" (Vaughan & Vaughan, 1999, p. 205). Prospero has to keep the number of people on the island exactly twelve; otherwise the alchemic experiment will fail. He even pays attention to the mariners of the ship:

PROSPERO	Of the King's ship,
The mariners, say how thou hast disposed,	
And all the rest o'th' fleet?	
ARIEL	Safely in harbour
Is the King's ship	(I, 2, 224 – 226)

They are completely separated from the others; thus they will not interfere. Prospero's words, "But are they, Ariel safe?" (I, 2, 217), indicates that he does not want to take a cruel revenge on either Antonio or Alonso, or the others, but rather intends to use them for the experiment.

The following passage even strengthens the idea that Prospero tries to reach perfection and create the Elixir.

PROSPERO	Ariel, thy charge
Exactly is performed; but there's more work.	
What is the time o'th' day?	
ARIEL	Past the mid-season.
PROSPERO	
At least two glasses. The time 'twixt six and now	
Must by us both be spent most precious. (I, 2, 237 – 241)	

²⁹ Magic and alchemy thought to have been unworldly, divine or transcendental. Considering what and how alchemists wanted to achieve it, it is not a surprise.

“Prospero amplifies Ariel's Past the mid-season, declaring that the time is now 2 p.m., and the action must end by 6 p.m., [...]” (Vaughan & Vaughan, 1999, p. 166) The experiment has to be carried out within four hours, which stresses the importance of number four since it represents the four elements and thus the earthly dimension of alchemy. It is tempting to conclude that Prospero pays attention not only to his own spiritual ascendancy, but also to the perfection of the alchemic reaction considering divine as well as earthly dimensions. However, Prospero seemingly does not calculate in the possibility that the “ingredients” might not be able to be purified and transmuted.

Ariel himself, being an air spirit, is a great concern. Although he is not part of the Elixir-making directly, as the Air element he plays a crucial role to be part of the maintenance of the alchemic perfection. His constant arguing with Prospero seems to disturb this harmony.

ARIEL

Is there more toil? Since thou dost give me pains,
Let me remember thee what thou hast promised,
Which is not yet performed me.

PROSPERO

How now? Moody?

What is't thou canst demand?

ARIEL

My liberty.

PROSPERO

Before the time be out? No more! (I, 2, 242 – 246)

Within, Prospero is able to keep the four elements together, but when it comes to practising material alchemy the pieces seem to fall apart.

Miranda, the representative of the element Water, is not perfect either. The scene when Miranda and Ferdinand meet shows how naive Miranda can be since she considers Ferdinand “A thing divine,” (I, 2, 419) from above. This naivety leads to Miranda's conflict with Prospero when trying to dissuade him not to treat Ferdinand severely:

MIRANDA

Beseech you, father -

PROSPERO

Hence; hang not on my garments.

MIRANDA Sir, have pity;

I'll be his surety.
 PROSPERO Silence! One word more
 Shall make me chide thee, if not hate thee. What,
 An advocate for an impostor? Hush. (I, 2, 474 – 78)

Miranda's disobeying behaviour is another proof of the experiment's imperfect nature. Moreover, Ferdinand and Miranda's love disrupts the harmony of the elements as a particular theory of alchemy claims:

What is to be transmuted or healed must be "pure" or "She," otherwise virtue as the elixir will only be able to gild and not transform it. Elsewhere, the alleged purity of the quintessence is made the core of an alchemical figure in a cynical reference to love "being no quintessence". (Mazzeo, 1957, p. 116)

Finally, Caliban is the most reluctant and stubborn being on the island. Prospero states that he is "not honoured with/ A human shape." (I, 2, 284-285), thus he is a deformed creature, son of the witch Sycorax. Moreover, Prospero claims that he is the son of the devil: "Thou poisonous slave, got by the devil himself / Upon thy wicked dam; come forth!" (I, 2, 320-321). Caliban is not wholly a human being; as the offspring of the devil he cannot be changed; thus he pollutes the alchemic ingredients with his presence. As a representation of Earth he "is suspended in time and space and is what the alchemists would call the least volatile or most fixed of the elements" (Working with the Elements). Although Prospero is able to make him a servant and an *assistant*, in the process of the Squaring of the Circle Caliban is unmanageable. He even leaves Prospero and joins Trinculo and Stephano together with whom Caliban wants his previous master's death.

The last characters to examine are Antonio and Sebastian. They are the embodiment of chaos and malevolence in the play, who want to kill the king and seize the power at all costs. Their malevolence in itself would be enough to ruin the alchemic process.

Besides the above factors there is a final one that prevents Prospero from creating the Elixir, which related to the nature of the Quintessence: it is impossible to extract without killing a human being.

3.3. Failure versus success: scepticism and mockery

After realizing his failure as an alchemist Prospero gathers everyone and says “Not a frown further.” (V, 1, 30) emphasising that he has finished his experiment and only wants to return to Milan where “Every third thought shall be my grave” (V, 1, 312). His failure as an alchemist is obvious, but owing to the crucial role duality plays in the work the final note should not be that of failure. As in the case of the tempest as a storm, as well as an alchemic reaction, Prospero’s final plan and twelve years’ work have two layers. On the one hand, he fails as a practical (or material) alchemist, because he is unable to create anything on the island. He also fails partly as a ruler taking into consideration the behaviour of Ariel, Caliban and Miranda. On the other hand, though, he is successful as a spiritual alchemist, because he is able to Square his Circle thus reaching spiritual ascendancy. As a result he successfully brings about the initial tempest, controls it, and guides everyone through the island until they are all at the same place. As a magician and ruler he does not fail completely, but when it comes to empirical knowledge he lacks certain abilities, without which it is impossible to put theoretical knowledge into practice. Prospero’s utterance “Not a frown further” indicates that he is able to disregard his past furies and can calm himself down.

Before he goes back to Milan he gets rid of two of his magic tools: his books and staff.

I’ll break my staff,
Bury it certain fathoms in the earth,
And deeper than did ever plummet sound
I’ll drown my book. (V, 1, 54 – 57)

After centuries of practice alchemy slowly transforms into chemistry and its mysticism disappears as well.³⁰ Prospero’s deed reflects the upcoming scepticism towards alchemy and that may be seen as a reason why Prospero drowns his books and breaks his staff. However, these deeds should be interpreted cautiously. First, by burying his staff, probably made of wood, into the earth he makes it possible for that magical object to sprout into a tree. If that magic staff represents alchemy and magic, the newly sprouted

³⁰ See Read, p. 264.

tree will carry the knowledge of alchemy, only in a different form. Second, it is intriguing that Prospero chooses to drown his books instead of burning, tearing up or burying them. The reason behind doing so might be that alchemic knowledge will dissolve from the books and then it will be added to the humongous knowledge the sea represents. Water in the form of seas and oceans can be found everywhere and some day someone might discover this alchemic and magical knowledge and turns them into another, improved one.

Finally, Prospero's name carries crucial information about the era's approach to alchemy. His name derives from the adjective *prosperous*, which carries the meaning of *success*. It implies that the play may contain an underlying mockery towards alchemy and the creation of the Elixir. Prospero is by no means successful if we consider all his actions and attempts. But alchemy is not the only thing apparently mocked here. Throughout this paper and especially in the first chapter it is emphasised that in most of the cases tragic-comedy and romance as genres are commonly associated with the idea of success and triumph. "The main character must endure a series of hazards and trials that lead ultimately to success and reward." (McDonald, 2001, p. 95) The events and Prospero's aborted efforts in the plot also suggest a challenge to the genre-based theories.

Conclusion:

Although the title of the play alone could prove the presence of alchemy, since the word *tempest* itself is an alchemic notion, I set myself the task in this paper to find and examine some apparently crucial parallels between Shakespeare's drama and some contemporary scientific and historical phenomena, and personalities so as to be able to offer a more solid ground to my hypotheses.

Starting from recent critical findings first I made an attempt to locate some parallels on whom Prospero's figure could be modelled. I found that Prospero's character could be associated with Rudolf II, and a renaissance alchemist, Cornelis Drebbel. It has not been proved yet whether Shakespeare knew John Dee; still, I do not find the proposition that the shaping of Prospero's character was influenced by Dee's personality impossible either. Though some of the critics' conclusions have turned out to be unorthodox assuming that Shakespeare was Francis Garland himself, Prospero's similarity to those of the emperor Rudolf II and Drebbel is more striking and evident.

After justifying the hypothesis concerning the play's alchemic nature I decided to investigate its manifestations from the point of view of the play's generic categories, that is, what light is thrown upon the hero's deeds when the work is read as a tragic-comedy, or as a dramatized romance. Although the definitions of both tragic-comedy and romance contain success and triumph over obstacles, I have so found that the details and circumstances of Prospero's successful project at the end of the play seem to imply a possible mockery directed at alchemy.

From another perspective the title seems to foreshadow a characteristically holographic duality in the interpretation of many components. The phenomenon of the *tempest* can be associated with alchemic as well as non-alchemic characteristics when concentrating on Prospero's life. For instance the reasons behind his exile can be both alchemic and non-alchemic. His quest can also be seen as a trial in the course of which he tries to learn how to be a good ruler; in this way, he tries to achieve the highest possible type of knowledge to become a perfect alchemist and to be able to create the Elixir. His quest is not without obstacles though: he has to understand alchemic texts, which are concealed carefully from unworthy eyes. Eventually Prospero learns both the principles of ruling and those of alchemy, and by combining these two kinds of

knowledge he successfully reaches the highest type of *epistheme* and Squares his own Circle.

As alchemic texts are encoded with the help of numbers and geometric objects Prospero encounters difficulties when trying to acquire the knowledge stored inside them; in the end, however, he proves that he understands alchemic texts and has fully acquired alchemic knowledge. I claim that a significant proof of this is that he manages to subjugate the whole island with the people representing the four elements on it. That is why he is finally able to Square his own Circle and get rid of his passions by the time the ship with his enemies on board arrives. The number of human beings on the island may serve as evidence, too, that Prospero is fully capable of using the knowledge collected so far. Added to that, the raising of the storm, or the technique of his distribution of the people on the island, also supports this hypothesis.

Yet, despite all his efforts Prospero is unable to create the Elixir. From this point of view his actions on the island cannot be interpreted as success. The popular theories concerning the play's possible genres and claiming that Prospero successfully goes through his quest with a triumphant result can thus be contradicted by the above fact, namely that he fails to create the Elixir. Although, he proves successful when his political skills and magic are considered, as an alchemist he eventually does not manage to realize the meaning of his name, which is "success". As a final deed, he breaks his staff and drowns his book making way to future scientists to develop alchemy into chemistry. Prospero's failure might foreshadow the upcoming age of scepticism and the end of alchemy.

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