

PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA



**UNIVERSITY OF MOSTAGANEM
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FACULTY OF FOREIGN LANGUAGES

DEPARTMENT OF ENGLISH

**CRYPTOLOGY AS A STYLISTIC TOOL: WHEN STYLE
BECOMES AN ENIGMA IN POETRY**

**Thesis Submitted in Candidacy for the Degree of Doctorate Es-Sciences in
Linguistics and Stylistics**

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2020/2021

Dedication

Dedicated to my soulmate and spouse Radia

To my little angels Ishak and Zohra

&

In memory of my mentor, teacher and academic father

Prof. Bel Abbess Neddar (1960 – 2017)

Acknowledgments

My first obligation is doubtlessly directed to my former academic father, teacher, mentor and supervisor Professor Bel Abbess Neddar (May Allah bless his soul) who initiated me, among many students, to linguistics and taught me how to enjoy it. His moral support, orientation, guidance, and endless encouragement were the essential catalyst for the accomplishment of this study.

My gratitude is also directed to my current supervisor Professor Benneghrouzi Fatima Zohra for accepting to help and support me and be a substitute for Prof. Neddar. I could not find a better successor to Prof. Neddar than Prof. Benneghrouzi. Prof. Benneghrouzi's devotion, seriousness and professionalism have always attracted my admiration.

I would also like to address my gratitude to the members of the examination board, namely Dr. Boudjlal Mustapha, Prof. Merbouh Zouaoui, Prof. Ouerrad Belabbes, Dr. Larbi Narimene and Dr. Labed Zahira, for doing the honour of accepting to be part of the examination board and for devoting part of their time and efforts to read and examine the study at hand. Their comments and remarks will certainly be valuable additions to the credibility and plausibility of this modest attempt in the fields of linguistics and stylistics.

A special acknowledgment goes to my wife, soulmate and my better half Dr. Benyoucef Radia who saw me through all the joys and frustrations of this research throughout helping me stay focused. Thank you dear for the academic advice, for transcribing the poem '*ygUDuh*' and for proofreading the work, but mostly for always believing in me and reminding me that the journey to a goal is one step at a time.

I am also grateful to the participants for taking part in this research and for accepting to answer the online questionnaire. I also would like to thank my best friends Benhamou Mohamed Abdelhadi and Youcef Khoudja Abdelkader who supported me morally and financially to finalize the work.

At last, I would like to send a special gratitude to all the haters and doubters who ever doubted me academically, professionally and personally. Thank you immensely for pushing me to prove you wrong.

Abstract

The research at hand aims to implement cryptology as a stylistic analysis tool for poetry in general and visual/concrete poetry in particular. Indeed, the present study attempts to discover the extent to which the use of cryptology can contribute in facilitating the process of reading visual/concrete poetry. In order to reach the aforementioned aim and solve the problem of the study, the researcher adopted a textual analysis method of a selected set of poems by Guillaume Apollinaire (1918), namely *'Paysage'*, *'La Cravate et la Montre'*, *'Cœur Couronné et Miroir'* and *'La Mandoline l'Œillet et le Bambou'*. In addition to Apollinaire's poems, the researcher selected a set of poems by Edward Estlin Cummings (1904 - 1962), viz *'l(a)'*, *'SNOW'*, *'ygDuh'*, *'r-p-o-p-h-e-s-s-a-g-r'* and *'the sky was'*. To analyse data, cryptographic peculiarities in the selected set of poems by Apollinaire and Cummings were extracted, then the encrypted passages of the poems were decrypted by applying multiple cryptanalysis approaches. Finally, a stylistic analysis was conducted on the selected poems so as to reach a literary significance. Effectively, the findings of the study revealed that no common encryption system can be observed in Apollinaire's and Cummings' poems. Furthermore, it appears that even though the selected poems display cryptographic features, it is hard to tell whether the poets deliberately intended to implement cryptology as a writing technique in their poems. Nevertheless, it is difficult to deny the significance that cryptology has in serving to reach a literary interpretation in concrete/visual poetry. Moreover, the significance of cryptology as an additional stylistic level that facilitates the understanding of the poets' poetic style and makes what was once unreadable readable is also undeniable.

Keywords: cryptology, cryptanalysis, encryption, decryption, stylistics, style, concrete/visual poetry, Apollinaire, E. E. Cummings.

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GENERAL INTRODUCTION

Human sciences comprise a number of sciences that attempt to study phenomena which help to unravel some mysteries that relate to man as such. Among those sciences, one can mention anthropology, psychology, sociology, literature and linguistics. Effectively, all of the heretofore mentioned sciences are interlinked, yet a special relation tends to exist between literature and linguistics. Indeed, notwithstanding the differences and apparent independent status that each of these two fields claim to have, an element makes the tie between literature and linguistics undeniable. Such an element is an indispensable tool in literature, whereas it is the subject matter or focal element without which the science of linguistics would not have emerged. This key element is language and it is irreplaceable in both fields. Prior to delving into the realm of linguistics and literature as related by language, it is first worth having a brief memory refresh about the tenets and main concerns of each field, viz linguistics and literature respectively.

Linguistics is often referred to as the science of language (Lyons, 1968) as it attempts to study language applying scientific theorizing and analysis. Furthermore, linguistics follows an empirical approach (Sampson, 2001, p.13) in its study of language because it deals with language phenomena by going through the common steps of an empirical study, namely research questions and hypotheses, data collection, data analysis, results and findings and concluding with an idea that could be developed to a theory provided that more research is to be conducted on the same phenomenon.

The inter-divisibility of language to smaller constituent units led to the development of branches or else sub-disciplines within the discipline of linguistics. Each branch approaches a constituent unit of language. Accordingly, the unit of sounds is studied by two branches of

linguistics, namely phonetics and phonology. Such a division of labour among the two branches is due to the double-faced nature of sounds which possess both concrete and abstract facets. Thus, the concrete and physical properties of sounds are the concern of phonetics, whereas the abstract and theoretical aspect is the concern of phonology (Ladefoged and Johnson, 2005). Effectively, one of the classical instances that are provided in order to draw the division line between phonetics and phonology is the realization of /p/ sound as [p̚] at the beginning of words and word medially and as [p] word finally or after /s/ (Schane, 1973). In such an instance the concrete properties of the sound /p/ (that is [p̚] and [p]) are the concern of phonetics while the abstract and theoretical properties (that is the rules and patterns that underlie the distribution of /p/ within a word) are the concern of phonology.

After the unit of sounds comes the unit of words which are studied by the branch of morphology. Morphology did not exist independently only recently (Katamba, 1993). Indeed, according to some linguists such as Chomsky and Halle (1968) words can only be studied in relation to either phonology or syntax (Katamba, 1993). However, there is more to word study than just morphophonemics and morpho-syntax. Effectively, morphology is concerned with the patterns and processes that underlie word construction such as derivation, inflexion, compounding and so on.

The unit of sentence follows that of words and is studied by the branch of syntax. Syntax deals with sentence structure and attempts to develop the rules and patterns that underly sentence formation and phrases combination. It was reborn and given a nuclear status by Chomsky (1965) in his approach of Transformational Syntax in which he considers syntax as an indispensable bridge without which language form and content cannot be linked. Other approaches were later introduced to deal with syntactic phenomena, such as Government and Binding (Chomsky, 1980), and The Minimalist Program (by Chomsky in the early 1990s) among other approaches.

Meaning is also an important constituent of language and is studied by two branches of linguistics, namely semantics and pragmatics. Semantics is concerned with surface meaning or meaning as expressed by the words in the sentence. It deals with meaning elements such as reference, argument structure and so on. (Saeed, 2011). Pragmatics, on the other hand, deals with the speaker's meaning or else contextual meaning. It is concerned with meaning as implied by the speaker rather than openly stated. Indeed, there is generally more to meaning than just what words in a sentence convey (Levinson, 2003).

In addition to the aforementioned branches of linguistics, some other branches can also be cited, namely sociolinguistics, psycholinguistics and stylistics. However, these branches differ from the forerunning branches in being interdisciplinary branches as they involve merging two domains such as language and society, language and psyche or language and literature.

Sociolinguistics deals with language in relation to society as it emphasizes the influence of social factors (such as region, age, gender, social class, ethnicity) on language (Holmes & Wilson, 2017). Indeed, sociolinguistics is concerned with such concepts as language variation, language and dialect, pidgins and creoles, politeness, register, style, bilingualism, code-switching and diglossia (Wardhaugh, 2009).

Psycholinguistics is interested in the study of language acquisition and language as window to the human brain (Steinberg, 2006). It attempts to study the relation between language acquisition stages and cognitive properties such as intelligence and brain lateralization. It is also concerned with identifying the factors that contribute to language acquisition.

Stylistics is a branch that bridges the gap between linguistics and literature. In other terms, stylistics uses linguistic theories and approaches in order to understand and interpret literary texts (Short, 1996). It is concerned with identifying such elements as linguistic

deviations that can be encountered in literary texts, especially in poems. Such deviations may occur at any or all linguistic levels, viz phonological, morphological, syntactic and so on. Stylistics also applies linguistic theories such as speech act theory, critical discourse analysis and politeness theory in order to understand and interpret literary texts (Widdowson, 1975).

Scholars such as Hough (1969) and Bradford (1997) have linked the 20th Century stylistics with the art of rhetoric whereby the history of stylistics shows that stylistics is linked to the art of rhetoric and can be traced all the way back to ancient Greece where it was originally utilized mainly for the sake of persuading other people to accept the ideas of the speaker. Western stylistics can be regarded as a branch of rhetoric whereby many ancient Greek philosophers wrote works on rhetoric, such as Socrates, Plato and Aristotle, contributing exceedingly to the development of the discipline. The first well-known masterpiece in the West was written by C. Bally, the student of the Swiss linguist Ferdinand de Saussure (1857-1913). Such a masterpiece included a systematic and scientific stylistics analysis which is rooted all the way back to ancient Greece.

As far as literary interpretation is concerned, literary criticism in the past few years has come to realise the importance of studying the language of literature which is one of the most complex and multifaceted phenomena. This has been done not with the help of rhetoric, but with the help of linguistics. Indeed, according to Enkvist (1973), Fowler (1981), Wales (2006), Mey (2009) and Walters (2015), stylistics has variously been regarded as the linguistic study of literary texts. This is done by implementing linguistic theories on literary texts in contrast to the traditional way of interpreting literary texts. Unlike literary criticism which deals with the life of the author/poet, the literary movement, or the intention of the writer, stylistics is

concerned with answering two questions, viz how is language used by literary writers? Why is it used that way? In order to answer these two questions, stylisticians analyse literary texts per se in order to achieve an objective literary interpretation.

Most of successful writers use language creatively throughout their unique literary style, that they use language differently from conventional and everyday language. By using their creative style, writers can give readers a surprise or twist in the story and also build strong impressions in their minds to captivate and disturb their schemata. Scholars such as Hough (1969), Verdonk (2010) and Malmkjaer (2003) believe that stylistics has a focal interest in studying style. In this respect, literary style is created by deviating from the norms of literary convention. The fact that linguistic deviation sometimes adds absurdity or ambiguity to literary works makes it worth being investigated further. As a matter of fact, linguistic deviation in literary works, especially in poetry, is analysed under the study of stylistics.

Historians believe that poetry was used in the past as a means of recording cultural events as well as a means for telling stories. As a matter of fact, some poems have disappeared prior to the world's primogenital remaining novel is the *Epic of Gilgamesh*, which was found written on a clay Tablet around two millenniums ago in antique Mesopotamia. The reason for the disappearance of those poems is the lack of written records.

Poetry involves the use of as few words as possible to create complicated sentences in a beautiful manner. The reason for this is that the poet is trying to communicate with the reader in a powerful way. This will lead the reader to ask the following questions when reading a poem:

What is the poem talking about?

How does the poet say it?

In an attempt to reach an answer to the above questions, the reader must not only guess the significance of the poem, but also analyse it which cannot be achieved at random, but rather in an organized way of analysis.

What is interesting about poetry is that poets hardly ever use a straightforward or clear way in saying what they mean as they always leave it for the reader to read and interpret the poem. By doing this, the reader is obliged to analyse the poem so that he reaches its significance. By analysis, we mean the examination of a piece of writing in a detailed manner. Therefore, when it comes to poetry; the word 'analysis' means 'to decode' or else to pick the poem apart by looking for elements of poetry, figurative language, and musical devices that the poet used in order to see how they all work together. However, before all this, the reader must be acquainted with the type of poetry he is dealing with since poetry itself is divided into other kinds, such as free verse or a sonnet. Then, the reader must follow the subsequent steps:

1. Read the poem slowly and more than once.
2. Look for the meaning of any unsure words using a dictionary.
3. Pay attention to any word in the poem without underestimating any.
4. Look how sounds of the poem effect the meaning by reading the poem out loud

As indicated earlier poetry is difficult to understand and interpret, yet there is particular type of poetry that makes the tasks of understanding and interpretation even more complicated. Such a type is concrete poetry which is a mixture of words and symbols. For this reason, when dealing with concrete poetry one may come across words such as visual poetry and calligramme. However, each type has evolved to have a distinct meaning of its own. Concrete poetry may seem new as it is true that it was till the 1950's that this concept was introduced by a group of Brazilian writers called the *Noigandres* who were led by Carlos Drummond de Andrade and Augusto de Campos who had an interest in this kind of poetry. Nonetheless, concrete poetry

was before known as '*Pattern Poetry*' and its use goes all the way back to Greek Alexandria of the third century B.C. At that time, poems were written on objects such as vases, swords, axe hand, even on eggs. In fact, one of the oldest shaped poems were 'Eastern Wings' and 'The Altar' which were written by George Herbert (1593-1633), during the Elizabethan era, and were given the shapes of wings and an altar respectively.

Concrete poetry is worth studying because of the difficulty of its readability and the unfamiliarity of readers with this poetic genre. As a matter of fact, readers who are not familiar with this kind of poetry encounter a barricade at the level of the style of language that is used. The formerly alluded to complex nature of concrete poetry raised the researcher's interest in concrete/visual poetry, particularly the type of concrete poetry that was introduced by Apollinaire's and Cummings' in their poems. Furthermore, such an interest in concrete poetry led to the development of the following main research question:

To what extent does the use of cryptology contribute in facilitating the process of reading visual/concrete poetry?

In order to consolidate the research problem that is raised by the aforementioned research question, the following set of sub-questions are raised:

1. Do the selected poems of Apollinaire and Cummings possess cryptographic features?
2. Can cryptology be used as a stylistic level to facilitate the reading of the selected poems?
3. Are there any commonalities between Apollinaire's and Cummings' poetic styles?
4. Did Apollinaire and Cummings deliberately implement cryptology as a writing technique in their poems?

The following hypotheses can be developed from the above research questions:

1. The selected set of poems by Apollinaire and Cummings possesses cryptographic features.

2. Cryptology can be used as stylistic level to facilitate the reading of the selected poems.
3. There are commonalities between Apollinaire's and Cummings' poetic styles.
4. Apollinaire and Cummings did not deliberately implement cryptology as a writing technique in their poems.

The current research aims to implement cryptology as a stylistic analysis tool for poetry in general and visual/concrete poetry in particular. Such an implementation of cryptology will facilitate the reading of the so-called 'encoded' poems or else it will equip readers with the necessary tool to read and interpret the poems.

A number of studies previously attempted a textual analysis of concrete poems, viz literary criticism and stylistic analysis. However, none of these studies succeeded in providing a tool that helps in reading the concrete poems. Thus, the originality of the present research lies in its introduction of cryptology as a stylistic level that facilitates reading concrete poetry and helps in reaching a literary interpretation.

The study at hand comprises four chapters, whereby the first two chapters provide a theoretical background. On the other hand, chapters three and four describe the methodology and practice of the research.

Chapter one, entitled *Fundamental Concepts in Cryptology* emphasizes the field of cryptology. It starts by defining the most used key terms of the aforementioned discipline in order to help readers get familiar with the field of cryptology. Then, it provides a brief historical background about how cryptology came to existence and demonstrates how deep its roots are in the line of history. After that, it explains why cryptology is important by indicating how it works and how its mechanism functions. This step is accomplished by explaining the most commonly known cryptographic methods and approaches. Next, it moves to clarify some types of classical cryptology which correspond to this research's case of study. Subsequently, it illustrates a

counterpart method that violates the rules of cryptology. At last, it makes the link between the domain of cryptology and the field of literature and shows how these two cross paths in the works of some well-known literary writers.

Chapter two entitled '*A Fundamental Study on Style and Stylistics*' is divided to two sections. The first section deals with an overall understanding of the term literary style, whereas the second section emphasizes the field of stylistics. In this order, the current chapter provides some literature about the term style starting with its definition. Then, some key elements of stylistics are taken into consideration. Thus, it moves to provide a preamble to the field of stylistics. To this end, it starts with its terminology, branches, and importance. Then, the researcher moves to explain how to adopt a stylistic analysis and he ends with elucidating stylistic levels.

Chapter three entitled '*Scope and Methodology*' is divided into two parts. The first part deals with the scope of the study where the researcher explains how poets can become painters and how painters can become poets. In other words, it indicates how poetry and painting can coexist in one literary piece. Then, it moves to elucidate Apollinaire's and Cummings' style in relation to visual poetry by dealing with their unique and unorthodox way of writing. The second part is devoted to the methodology of our enquiry where the chapter explains the methodology that was conducted. After that, the chapter presents Apollinaire's and Cummings' selected poems. In addition to that, readers' reaction towards the selected poems are dealt with to show the difficulty of reading the poems.

Chapter four entitled '*Decryption, Analysis and Discussion*' is concerned with the decryption of the poems, stylistic analysis, and the discussion of the findings. All these elements are achieved in separable, yet connected, steps. Correspondingly, the first step is concerned with depicting cryptographic peculiarities in the selected poems of both poets (Apollinaire and

Cummings). Additionally, the second step is concerned with decrypting or rather deciphering the poems that possess cryptographic features. Then, the third step involves a stylistic analysis of each poem depending on the linguistic deviation that the poets implemented in that poem.

CHAPTER ONE: FUNDAMENTAL CONCEPTS IN CRYPTOLOGY

It is an undeniable fact that any scientific endeavour that man has discovered is meant to serve human needs. Indeed, medicine serves health needs, economics deals with financial needs, sociology deals with social needs, and didactics deals with educational needs. In this regard, the field of cryptology serves the need of secrecy, security, and confidentiality as they are embedded in our daily lives. In one way or another we try to conceal our information such as in financials, diaries, and communications (diplomatic, military...etc). Thus, what is interesting about this need is that by protecting personal data people are actually performing a scientific task, so to speak, the field of Cryptology. The latter is the focal point of this chapter, or rather, a preamble to the field of cryptology. Therefore, the researcher starts by defining the most used key terms of the aforementioned discipline in order to help readers get familiar with the field of cryptology. Then, he moves to provide a brief historical background about how cryptology came to existence and to demonstrate how deep are its root in the line of history. After that, he explains why cryptology is so important by indicating how it works and how its mechanism functions. This step is accomplished by explaining the most known cryptographic methods and approaches. Next, the author moves to clarify some types of classical cryptology which correspond to this research's case of study. Subsequently, he illustrates a counterpart method that violates the rules of cryptology. At last, the researcher makes the link between the domain of cryptology and the field of literature and shows how these two crossed paths in the works of some well-known literary writers.

I. DEFINING KEY TERMS IN CRYPTOLOGY

The study of cryptology requires not only heavy knowledge of mathematics and algorithms, but also computer skills and sophisticated encryption/decryption software and programs. Therefore, the chapter at hand attempts to simplify the notion of the aforementioned discipline especially for readers who lack insight into it. In this regard, the following concepts may be of use to those who are interested in the field of cryptology.

1. Cryptology / Cryptography

The word cryptology is derived from the Greek term ‘**κρυπτός** /**kryptós**’ that stands for ‘hidden/secret’ and ‘**graphien**’ which stands for ‘write’ (Koheim, 2007, p.1). Accordingly, the meaning of this enquiry, that is the etymology of cryptology, is best interpreted as ‘secret writing’. However, when it comes to defining the concept of cryptology in more technical manner; the Oxford English Dictionary explains it as:

A secret manner of writing, either by arbitrary characters, by using letters or characters in other than their ordinary sense, or by other methods intelligible only to those possessing the key; also anything written in this way. Generally, the art of writing or solving ciphers. (cited in Talbot and Welsh, 2006, p.1)

Indeed, cryptology urges its users to deviate from the normal use of language whether it is letters, characters, numbers, or else. Such a deviation is intended and understood only by those who are intended to receive the coded message. In this regard, the International Journal of Computer Science Issues asserts that:

Cryptology is the practice and study of techniques for secure communication in the presence of third parties (called adversaries). More generally, it is about constructing and analysing protocols that overcome the influence of adversaries and which are related to various aspects in information security such as data confidentiality, data integrity, and authentication. (2012, p.583).

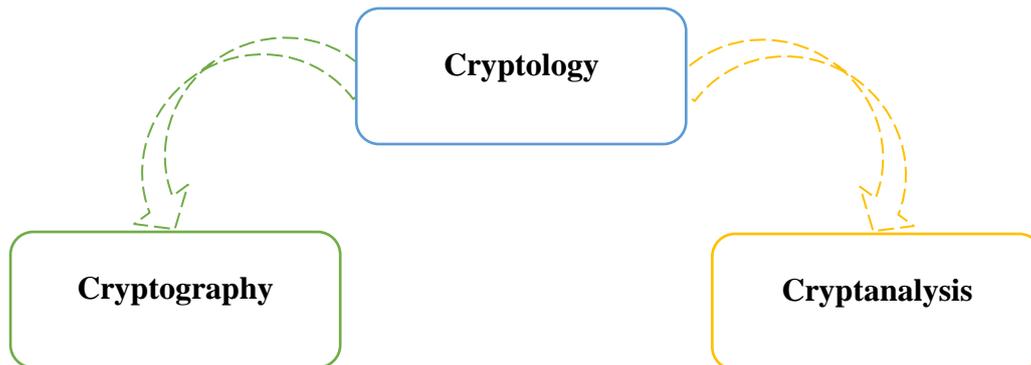
According to the abovementioned citation, cryptology is about secure communication which implies that the data of the message is highly classified and other parties, beside the intended ones must not possess it. Therefore, data confidentiality, integrity, and authentication are valuable elements for cryptology to protect.

In this respect, Stamp and Low (2007) define cryptology as ‘The science of making and breaking secret code.’ (p.2). Although Stamp’s and Low’s definition of cryptology seems concise and precise, it uncovers a lot about this domain. On one hand, it is the science that enables people to communicate via secret codes which means that unwanted parties beside the sender and the receiver cannot decode that secured communication., on the other hand, cryptology is also involves the breaking of those codes which implies that the secure communication can be broken or rather say interrupted and hacked. However, before delving deeper into how to make and break secured communication there is a point that must be dealt with.

People who are not acquainted with the field of cryptology may use the words cryptology and cryptography interchangeably, whereas both are different from each other. In

fact, the field of cryptology encompasses cryptography as a subfield and another subfield called cryptanalysis. The Figure below illustrates cryptology and its subfields:

Figure 1.1: Cryptology, Cryptography and Cryptanalysis



Indeed, Cryptology can be considered as the main stream from which subfields such as cryptography and cryptanalysis derive. The former is known as the practice of making and transforming a text from a readable state to an unreadable one and that is what Stamp and Low (2007) called making secret codes. This process enables two parties to communicate in a totally secure way, provided that they share or agree upon a common key to reverse the operation and make the unreadable readable. In light of this, Pretty Good Privacy Corporation (2003) asserts that ‘Cryptography enables you to store sensitive information or transmit it across insecure networks (like the Internet) so that it cannot be read by anyone except the intended recipient. (p.09).

Conversely, cryptanalysis deals with breaking secret codes without the need for a pre-shared key. In this regard, Klein (2014, p.2) defines it as “The process of trying to crack a cryptosystem; an eavesdropper would employ methods of cryptanalysis to try to Figure out the contents of Alice’s message to Bob.” In other words, cryptanalysis’ aim is trying to crack, or rather say hack/break, a secure communication between the legit sender and receiver without

having the key used to encrypt the message or find weaknesses in a cryptosystem. In this case, Schneier (2015) confirms:

The whole point of cryptography is to keep the plaintext (or the key, or both) secret from eavesdroppers...Cryptanalysis is the science of recovering the plaintext of a message without access to the key. Successful cryptanalysis may recover the plaintext or the key. It also may find weaknesses in a cryptosystem that eventually lead to the previous results. (p.5)

To this extent, the notion and the aim of cryptanalysis are revealed, yet, the question to be asked is how does a cryptanalyst break an encrypted message without having the key? The answer to this question lies in the classification of cryptanalysis process made by Dooley (2018, p.11) where he categorizes cryptanalysis into four areas.

- ❖ *the classical method* where the cryptanalyst focuses mainly on language analysis. To make this happen, the cryptanalyst must be acquainted with the language used in the encrypted message he wants to break, this will help him/her recognize language characteristics such as letter and word frequencies and sentence structure. When it comes to English or any given language a given text written in the same language has the same frequencies of all the letters in other text; for example, the letter 'e' in English is used about 13% of the time, the letter 't' is used about 10% of the time...etc. down to the last letter 'z' which is used less than 01% of the time. Being familiar with the frequencies in a language, the cryptanalyst can count the letters of the ciphertext and see how frequent letters are repeated, thus, s/he can get a hint what the right letter in the cleartext may be.

- ❖ *Statistical tests* where the cryptanalyst tries to reveal the pattern of the encrypted message especially when facing complicated cipher system.
- ❖ *Mathematical analysis* was used in the twentieth century thanks to the introduction of encryption equipment such as the enigma machine, this took cryptology to another level by implementing techniques from combinatorics, algebra, and number theory.
- ❖ *brute-force* used in the age of computer cipher system where the cryptanalyst falls back in guessing the encrypted key such as passwords or passphrases, however, this time the hacker relies more on sophisticated software to get the job done.

2. Encryption / Decryption

If there is anything in the field of cryptology that one should be conversant with, it should be the terms **encryption** and **decryption**. Talbot and Welsh (2006), Stamp and Low (2007) and Pretty Good Privacy (PGP) (2003) consider encryption and decryption as the core of cryptology, these two concepts allow users to encrypt and decrypt any text. However, before defining encryption and decryption, it is necessary to introduce the content of the message as it plays a massive role in encrypting/decrypting communication.

Within this framework, the content of the message that can effortlessly be read, understood, and be easily accessed is called **plaintext** or **cleartext**, whereas, the data that is coded and cannot be read at the first sight is called **ciphertext**. Both encryption and decryption deal with plaintext and ciphertext.

According to Ron Rivest, Adi Shamir and Leonard Adleman (RSA) Laboratories (2000) encryption is:

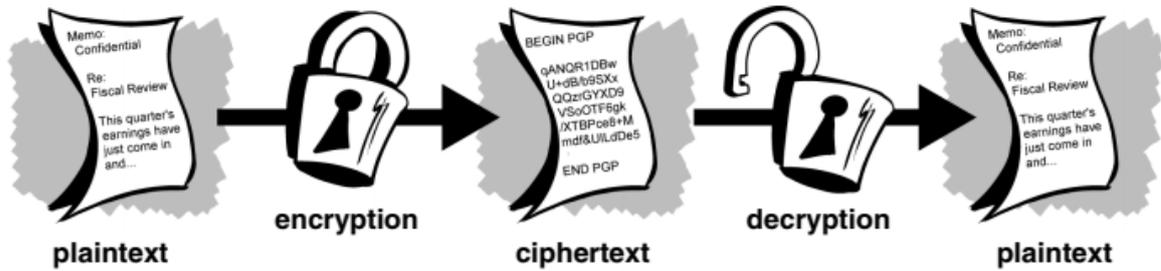
The transformation of data into a form that is as close to impossible as possible to read without (*sic*) the appropriate knowledge (a key). Its purpose is to ensure privacy by keeping information hidden from anyone for whom it is not intended, even those who have access to the encrypted data. (p.10)

Another terminology for the term encryption, as PGP (2003) puts it, is ‘The method of disguising plaintext in such a way as to hide its substance’ (p.9).

Decryption, on the other hand, is defined by Guarrett (2001) as the process ‘conducted by the legitimate intended receiver, recovering the original message (the plaintext) from the obscured version (the ciphertext) (p. xvii). In this regard, decryption is considered as the reversed version of the encryption process; it goes backwards from ciphertext to plaintext or rather say from the unreadable text to the readable one.

RSA (2000) pays a great importance to ‘the key’ which has a very effective role in the process of keeping a secured communication. The key as RSA defines it is ‘**secret information**’ (p.10) that both sender and receiver use in order to encrypt and decrypt the content of the message. Yet, what is more interesting about the key is that without it, even the legit receiver (the one whom the message is sent to) cannot decrypt it. The Figure below shows how the processes of encryption and decryption work.

Figure 1.2: The Processes of Encryption and Decryption



Note: Reprinted from *Pretty Good Privacy* (2003, p.9)

There are other concepts related to the term encryption and decryption such as encipher/decipher, Delfs and Knebl (2002) assert that ‘Sometimes the terms encipher and decipher are used instead of encrypt and decrypt’ (p.1). Therefore, these terms (encryption, decryption, encipher, decipher, encode, and decode) are used interchangeably.

3. Steganography

Another way to secure communication between two/multiple parties is called steganography. The latter, according to Zur (2015, p.409) is derived from “the Greek word *στεγανός* (steganos, meaning covered) forms together with *γραφειν* (graphein, to write) the word steganography. It refers to the art of hiding a message in some other text (or picture) in a way that disguises its pure existence.” According to the aforementioned citation, steganography is different from cryptology in the way communication is secured. Cryptology seeks to conceal the content of the message so that it is impenetrable, whereas, steganography deals with hiding the message itself which requires a specific set of skills.

To illustrate how steganography works; an example is taken from the cartoon series “Detective Conan”. In season twelve, episode eighteen where a man was killed in his room where there was no trace of breaking in, the victim was laying cold in the middle of the room.

Therefore, it seemed difficult and nearly impossible for Detective Conan to solve this crime and reveal the identity of the killer. After a thorough investigation, he found the following numbers typed on the screen of the victim’s phone, those numbers are as follows: “**36987412-14756369-123258**”. In this case, the numbers did not make any sense to Conan as he could not decrypt them, even though he knew that these numbers are a kind of code that can lead to the identity of the killer.

However, since the detective does not possess the appropriate key, it was impossible for him to crack the code and read its content. Yet, there was no required key in this situation. Since the room was empty of anything that is related to those numbers, Detective Conan realised that those number are not an encrypted message that needs decryption, but they are the message itself. All that he needed to do is to rely on steganographic technique to solve the case. Since the numbers were written on a numeric keyboard (on the victim’s cell phone), Conan started seeing things clearly; therefore, he drew a numeric keyboard on a piece of a paper and since he had three different series of numbers, he drew three keyboards. After that, he highlighted the intended numbers on the keyboard. See Figure below:

Figure 1.3: Encryption and Decryption Using Steganography

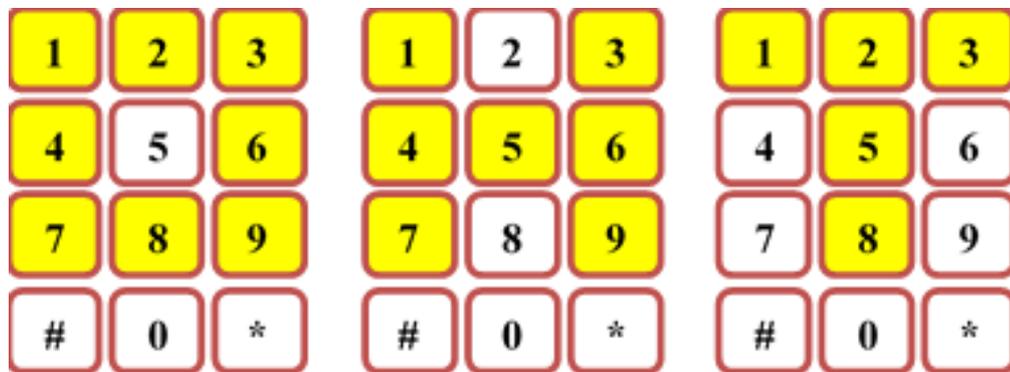


Figure 1.3 evidently shows that the numbers on the screen of the phone are shaping a form of alphabet letters, where the highlighted first part ‘36987412’ of the serial number forms the letter ‘O’, the second part, ‘14756369’, forms the letter ‘H’, and the last one, ‘123258’, forms the letter ‘T’. Here, Conan concluded that the victim, before dying, typed the initial letters of the name of his killer hoping a smart detective could serve justice, and eventually that’s what really happened by the end of the story when the killer under the name of **O**nimusha **H**ideyoshi **T**oyotomi was taken into custody and confessed the crime he committed.

According to Wobst (2007) steganography has one serious Achilles’ heel since the content of the hidden message is not really secured by a pre-shared key between communicators (as seen in cryptography), but it rather relies on one fixed method. If a third party intercepts the message and reveals its content then communication is compromised. In this regard, Wobst (2007) suggests “This is the reason why a message is normally encrypted before you hide it steganographically.” (p.13).

A. Types of Steganography throughout History

Any kind of study, scientific or non-scientific, witnesses a kind of evolutionary progress. That is to say, the deeper its scholars delve into it, the more advanced it becomes. In this respect, steganography is no exception as it started by using simple methods, in hiding the existence of the message, such as invisible ink to end up, nowadays, with sophisticated techniques using digitized data, Zur (2015, p.409) asserts: “Secret inks were popular through the centuries, and today we have steganographic techniques that try to hide information in digital files.” Indeed, the use of encrypted messages using steganography method is more likely preferable in the field of secured communication. However, for a better understanding of the

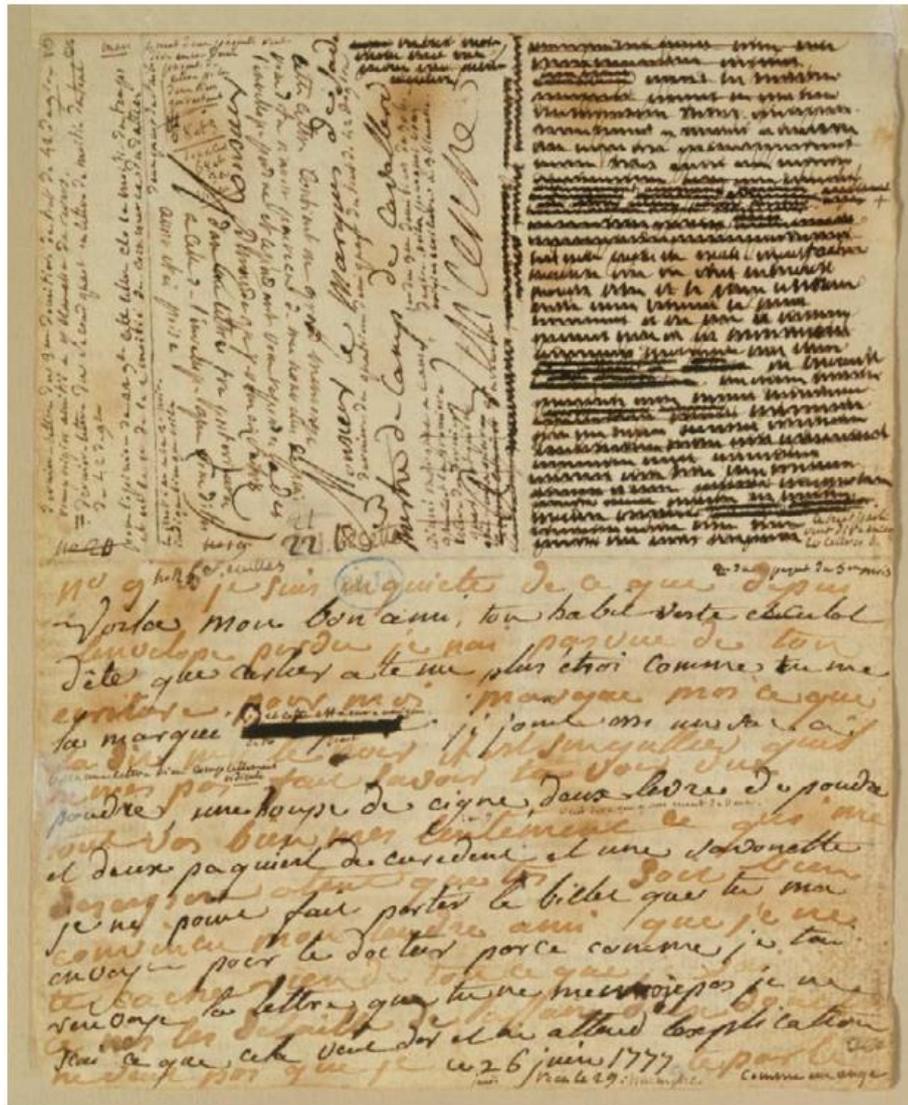
development of this inquiry, the researcher sheds light on the most known techniques starting with the traditional ones.

1) Invisible Ink

Steganographic traditional methods witnessed so many methods. One method which may be known to most people, not necessarily specialized in the domain of encryption, is called invisible ink. The latter can be made from different materials such as fresh milk, lemon juice, and urine. The process of this technique is simple; on a white sheet one can write his/her message then leave it to dry. When the paper gets dry, the message itself becomes invisible, therefore, the receiver of the message (paper which possesses the invisible text) must be aware that the blank sheet is not really blank and that it holds an invisible message. In order for the receiver to make the invisible text visible he needs to expose it to some kind of chemical compound or heat.

For a practical illustration, Zur (2015) presents a letter sent to Donatien Alphonse Francois Marquis de Sade from his wife in 1777 when he was sentenced to jail for sexual practices. Subsequently, his wife used the technique of steganography to hide the intended message. See Figure below.

Figure 1.4: Letter to the Marquis De Sade In Prison from His Wife



Note: reprinted from Zur (2015, p410)

The letter in Figure 1.3 contains two kinds of texts, the visible one (black ink) which was used as a decoy so that even the guards in the prison cannot suspect anything and may consider it as an innocent letter as it goes in the French language (its original language) as follows:

Voilà, mon bon ami, ton habit, veste et culotte d'été, que Carlier a tenu plus étroit, comme tu me l'as marqué. J'y joins aussi un sac à poudre, une houppette de cygne, deux livres de poudre et deux paquets de cure-dents et une savonnette. Je ne peux faire partir le billet que tu m'as envoyé pour le docteur, parce que, comme je t'ai renvoyé la lettre que tu ne me renvoies pas, je ne sais ce que cela veut dire et en attends l'explication.

The English version:

Here are, my dear friend, your jacket, vest and summer pants which Carlier made tighter as you told me. I also add a bag for powder, a swan powder-puff, two pounds of powder, two packs of tooth-picks, and a piece of soap. I cannot pass to the doctor the note that you sent me, since I returned your letter and you do not send it back to me. I do not know what it means and wait for an explanation of it. Translated by Zur (2015, p.411)

The second text (written with brown ink) is the invisible one which was the real message of the letter, its content can only be visible when exposed to heat. the intended message goes as follows:

Je suis inquiète de ce que, depuis l'enveloppe perdue, je n'ai pas vu de ton écriture pour moi. Marque-moi ce que t'a dit M. Le Noir [Sade's lawyer]. Il est singulier qu'il ne m'ait pas fait savoir t'avoir vu. Tout va bien, mais lentement, ce qui me désespère autant que toi. Sois bien convaincu, mon tendre ami, que je ne te

cache rien de tout ce que je sais. Ce n'est que les détails de l'affaire d'Aix dont on ne veut pas que je te parle.

The English version:

Here are, my dear friend, your jacket, vest and summer pants which Carlier made tighter as you told me. I also add a bag for powder, a swan powder-puff, two pounds of powder, two packs of tooth-picks, and a piece of soap. I cannot pass to the doctor the note that you sent me, since I returned your letter and you do not send it back to me. I do not know what it means and wait for an explanation of it. Translated by Zur (2015, p.411)

2) *Images and Pictures*

Another steganographic use lies on an artistic manner in a form of a picture or an image. This kind of technique is considered as the next level of steganography. Frederici (1685) pioneered a technique of hiding messages inside a picture, who would suspect a picture can be used for secret communication. According to Zur (2015, p.414) Frederici's method of steganography is solved by drawing vertical alphabetic lines so that when put on the image, the secret message is revealed. However, both parties (sender and receiver) must agree on a specific mark within the picture so that it corresponds to the intended alphabetic letter. See Figure 1.5:

Figure 1.5: Friderici's Steganography (Before Revealing the Message)



Note: reprinted from Zur (2015, p412)

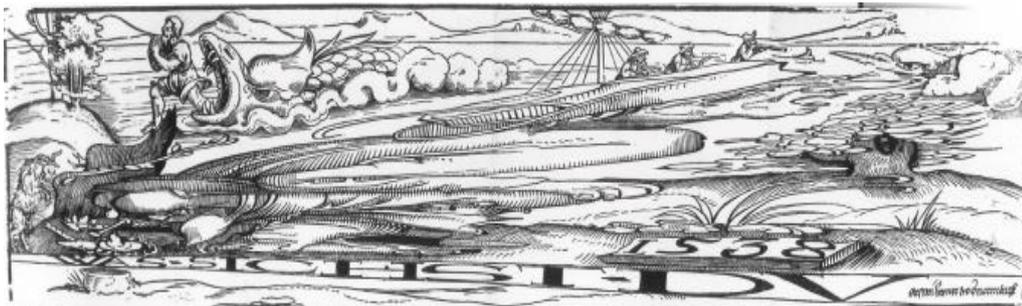
Regardless what the image above represents, it does not have any relation to the intended hidden message. Consequently, if this picture got intercepted by a third party who is not the genuine recipient of the message, the hidden message will still be secured. This is because the image is not the message itself, it is just a tool used to reveal the message. For that, according to Figure 1.5, the vertical alphabetic list is the key, but it certainly will not accompany the image wherever it goes as it needs to be restricted between the sender and the receiver.

To reveal the hidden message, the receiver must draw vertical alphabetic lines so that they match with a special mark within the image. In this case the special mark is an eye of the persons in the picture, an eye of animals, or any shape that takes a form of an eye. For illustration, see (Figure 1.6). According to the Figure above, each eye matches with a given alphabetic letter. Effectively, the eye of the lion, located in the left lower corner of the image, corresponds to the letter 'd', the eye of man holding a sword corresponds to the letter 'i' and so on. When all marks are identified and related to the intended alphabetic letter, the receiver should get this message *U N S E R C O M M E N D A N T I S T T O D*. The latter, when read from top bottom and left to right in German is '*Unser Commendat ist tod*' which means '*Our commander is dead*' in English.

3) Anamorphosis

Another steganographic technique that also uses images in hiding messages, but it is different from the previous one, is called Anamorphosis. According to Kipper (2004, p.9) it is ‘a technique in which an image, or the production of an image, appears distorted unless it is viewed from a special angle or with a special instrument.’ This steganographic method goes all the way back to Da Vinci’s era as it is believed that he was the first to use anamorphosis in painting (Suchy, 2001). However, it was not meant for hiding intended messages until the 15th century when a German artist called Erhard Schön used anamorphosis to hide a secret message in a painting which he (1538) called ‘*Was siehst du?*’ (*What do you see?*) the painting is a representation of an erotic imagery which was considered as a taboo in his period, therefore, the painting looks so chaotic and meaningless unless we see it from a specific perspective or angle. For more clarification see Figure 1.7:

Figure 1.7: *Was Siehst Du?* (What Do You See?) By Erhard Schön (1538)



Note: reprinted from Castillo (2015, p.143)

The painting in Figure 1.7 seems so innocent, a painting of a landscape with a boat navigating through the river, however, the painting is not that innocent as it hides an erotic

image when perceived from the right at a sharp angle. Indeed, the painting of the landscape turns into a couple in an erotic scene and two other people behind the curtains; see Figure below.

Figure 1.8: The Hidden Image in *Was Siehst Du?* By Erhard Schön (1538)



Note: reprinted from Castillo (2015, p.143)

To avoid any kind of confusion, the trick will not work here (in case the reader is trying to see how anamorphosis works) as this is just a copy of the original painting. For this to work one needs to visit London's National Gallery.

B. Steganographic Modern Methods

As asserted earlier, the technique of steganography in hiding messages and securing important information witnessed an interesting upgrade. By upgrade, it is meant the use of technology and very sophisticated equipment. In this section, the author is going just to point at the most known steganographic modern methods in a superficial manner. This is done because modern steganography requires high skills in computer science and complex algorithms. Since this section is a kind of brief literature of the field of steganography, dealing with modern steganography perfunctory will not affect the current research in any way.

1) *Microdots*

Microdots are considered as one of the most known techniques in modern steganography, Friedman and Callimahos (1952, p. 259) define the term as “The reduction of a page of copy to a negative the size of a miniature dot, which is then affixed on a period or on the dot of an ‘i’”

To put it differently, Black (2010, p.78) confirms that microdots “are photographs of documents reduced to the size of a full stop and placed in a non-secret document”. To explain this method in a more technical term, first of all, the sender takes a photograph of the message which he intends to send, then the photograph taken is reduced to the size of a postage stamp, after that, the image is dwindled using a reverse microscope so that it becomes in a size of 1 millimetre. (Kipper, 2004, p.8).

2) *Transform Domain Techniques (TDT)*

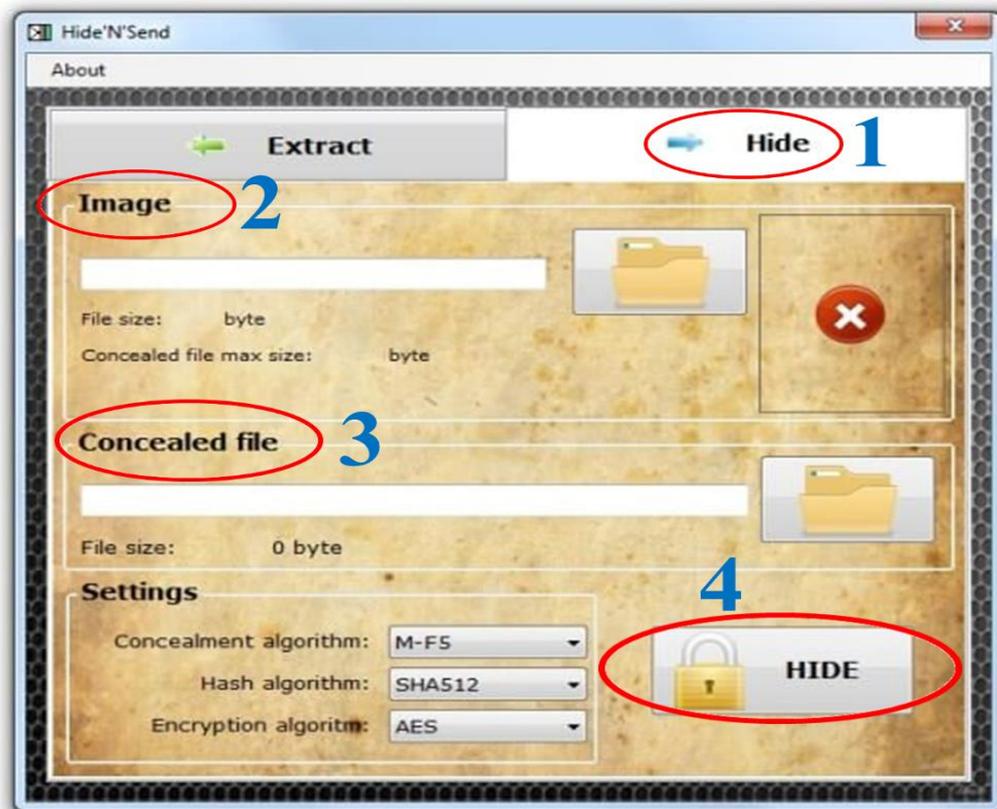
The method at hand seeks to conceal image data in the (transform space) of a signal (Kipper, 2004, p.55). In this respect, Sharma and Kumar (2013, pp.194-197) explain it as techniques “based on the manipulation of the orthogonal transform of the image rather than the image itself”. To explain TDT, people share and exchange pictures, photos, and images frequently on the internet, and mostly all kind of these files are in JPEG format. What is interesting about this format is that after closing it the file compresses itself, so to speak, it gets rid of extra data and bits. Accordingly, the image’s size is reduced thanks to that compression and reserve for itself some empty space, the latter can be used for hiding information.

3) *Hide'N'Send Steganographic Software*

Kolla (2017) wrote a post on the internet, precisely on a website called Geek Dashboard, where she classified the top ten steganographic software. According to her, she believes that the listed programs are best for hiding messages in an image, an audio, a video, or a file. However, not all of them will be mentioned here; the researcher will just highlight the top-classified software to explain and illustrate how steganography works in digitized world.

There are so many steganographic software that can hide information inside a given image format, however, what is interesting about Hide'N'Send is that it encrypts the message before it hides it inside an image, a file, or an audio. This can be considered as the most secure way in steganography, why? Because even any third party intercepts the hidden message s/he cannot read it because it is encrypted. The software is free for download; anyone can get it from download.cnet (see appendix) and it looks like Figure 1.9 below:

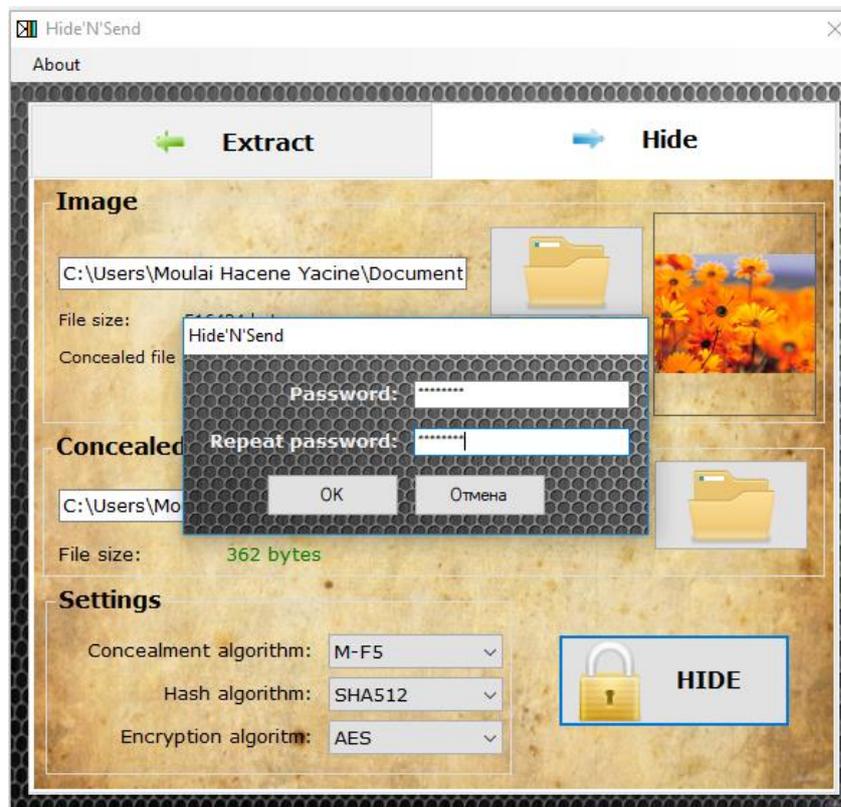
Figure 1.9: Steganographic Software Hide'N'Send



Note: reprinted from KOLLA (2017). Retrieved December 12, 2018, from <https://www.geekdashboard.com/wp-content/uploads/2017/07/hidensend-steganography-software.jpg> (Originally photographed 2017, October 28)

To illustrate how the software works, first, for hiding the data the sender should click on 'Hide' (1). As seen in Figure 1.9 the 'Image' (2) is where the sender can choose any image. The image selected is the host of the hidden data. Second, the sender has to choose the type of concealment file in the section below called 'Concealed file' (3), here, he can choose any file (image, audio, video, or document). Third, he should click on 'HIDE' (4) to finish. Finally, a small window pops out asking for the creation of a password and here where the encryption takes place. See Figure 1.10 below:

Figure 1.10: The Process of Hiding and Encrypting Data Using Hide'N'Send Software



Note: reprinted from KOLLA (2017). Retrieved December 12, 2018, from <https://www.geekdashboard.com/wp-content/uploads/2017/07/hidensend-steganography-software.jpg> (Originally photographed 2017, October 28)

II. HISTORICAL BACKGROUND OF CRYPTOLOGY

The vivid reason why this section does matter, apart from its relation to the objective of this research, is because the history of cryptology has certain amount of doubts and mistakes concerning its origins. By origin, we mean the pioneers of the science or those who were the first to create and use cryptology. In this respect, this section tends to clear the dust and wipe out any doubt concerning the origin of cryptology. Therefore, what most of the researchers and scholars who looked into the history of cryptology believed that the Italian architect Leon Battista Albertini (1404 – 1472) was the first to write about cryptology and they referred to him

as the pioneer of the processes of encryption and decryption. However, Kahn (1972) published a book entitled '*Kahn on Code: Secrets of the New Cryptology*' where he claimed otherwise and he attributed the birth of cryptology to the Arabs:

Cryptology was born among the Arabs. They were the first to discover and write down the methods of cryptanalysis. The people that exploded out of Arabia in the 600s and flamed over vast areas of the known world swiftly engendered one of the highest civilizations that history had yet seen. (p.93)

According to the abovementioned citation, Kahn (1972) spoke about the Arabs as being the founding fathers of cryptology namely Ibn Al_durayhim (1321 – 1361) who wrote the first manuscript in cryptology entitled '*Miftah el Kunuz fi ūdah al Marmuz*' (n.d). However, Kahn never put his hands-on Al_durayhim's manuscript, but he referred to what Al_Qašhandī (1355-1418) has published in his book '*sobh al'ŕeša fi sinaŕt al'iinša*' (n.d). Thus, Kahn was just reporting what Al_Qašhandī said, but what matters is that what Kahn (1972) did is that he took the history of cryptology six centuries back from Albertini's encryption method.

Kahn's claim (1983) made a massive change in the study of the origin of cryptology. This led a group of Arabian researchers to delve deeper and look for the manuscript that Al_durayhim wrote. In this regard, M. Mrayati, Y. Meer Alam, and H. Al-Tayyan (1987) published a book entitled '*Origin of Arab Cryptology and Cryptanalysis*' where they delved deeper in the murky waters of cryptology to find that even Al_durayhim is not the first one to write about encryption/decryption of messages but rather another Arabian philosopher Ab̄u Ȳusuf Ya'q̄ub ibn Ish. ̄aq al-Kind̄ī (801-873) in his correspondence '*Istikhraj Almaemaa*' with Ab̄u l-'Abb̄as. (Mrayati et al, 1987, p. 72)

III. THE MECHANISM OF CRYPTOGRAPHY

To clear the dust concerning how cryptology functions, one should be acquainted with the terminologies of the players. By the players, it means the hypothetical characters that are used to explain or describe any kind of system. In other words, we have this habit when giving an example about a conversation; we, unconsciously and always use ‘**A**’ and ‘**B**’ as our virtual characters without any second thoughts as in:

A: Hello! **B** how are you today?

B: Hi! **A** I’m good, how are you?

At the first sight ‘**A**’ and ‘**B**’ would look as if they were chosen at random like any other alphabet letters. However, if we take a minute and consider this duo and what they refer to, we will conclude that these two refer to **Alice** and **Bob** who are originally used as a standardized sender/receiver in the field of cryptography (Stamp and Low, 2007). There are other proposed characters that play supporting roles in cryptology: Eve, Charley, Jane, Dick, Carol, Donna...etc.

In most literary stories, as in novels, whether fiction or non-fiction there are two kinds of characters; we have characters of the good side and characters of the bad side (protagonist versus antagonist) and cryptology is no exception. The imaginary characters that cryptology possesses have their own conflicts. They can be divided into the good and the bad guys.

1. The Good and the Bad Guys

Stamp and Low (2007) consider those who play by the book of cryptology as the ‘*good guys*’ and those who do not as the ‘*bad guys*’. In this regard, Stamp and Low (2007) explain that:

In Cryptography, it is traditional that Alice and Bob are the good guys who are trying to communicate securely over an insecure channel. We employ Trudy (the “intruder”) as our generic bad guy. Some books have a whole cast of bad guys with the name indicating the particular evil activity (Eve, the eavesdropper, for example). (p.1)

Yet again, one may ask; why such concepts of “good guys/bad guys” are needed? And do they really exist in the field of cryptology? The answer to these two questions leads us to another question, that is to say, what do we mean by good and bad in the first place? It is commonly known that when there is a story (fiction story mostly) there are, on the one hand, characters that fight for the good side and they are called: Heroes, protagonists, and so on. And, on the other hand, other characters who fight for the evil side and they are called: antagonists, bad guys, criminals...etc.

However, the case is different in the field of cryptology. Good and bad in cryptography mean the communicators who respect the maxims of cryptology, that is, **code makers (the good guys)** and others who violate the maxims known as **code breakers** or **crackers (the bad guys)** as Stinson (2002) said. In this regard, the maxims of cryptology are simple and they are as follows:

- Both sender and receiver trust each other.
- Both sender and receiver must share the key to the ciphertext.
- The exchange of the encrypted text and the key should be done in a complete secrecy.
- No third party is allowed to interfere or intercept the communication.
- If the key is exposed the whole operation is compromised.
- Update or change the key when necessary.

C. Alice and Bob (The good side)

As a matter of fact, the aforementioned rules are very crucial to follow. In this case, the good guys are those who obey and apply the maxims of cryptology as it should be without breaking any maxim, that is to say, converting what is readable which is the plaintext, in to the unreadable ciphertext. In this vein, both Alice and Bob must agree upon a shared key so that they reverse the operation when communicating. So far, what Alice and Bob are doing is typical and familiar to the norms of cryptology, the Figure below illustrates how Alice and Bob practice cryptology:

Figure 1.11: Alice and Bob Secure Communication

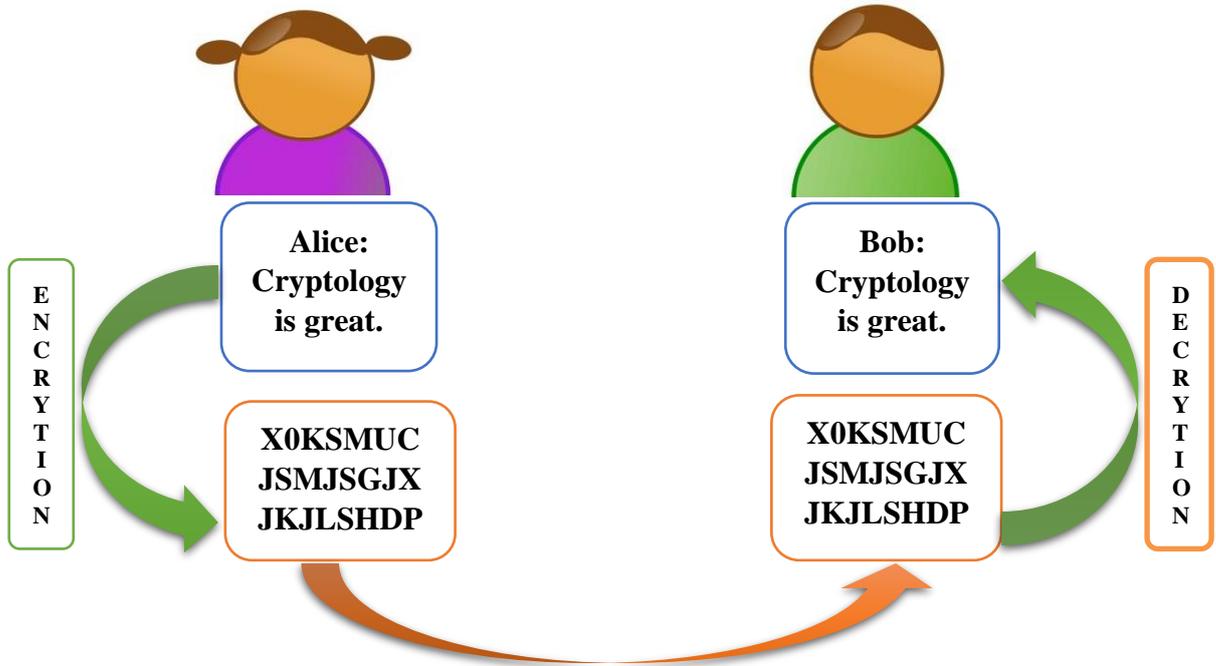


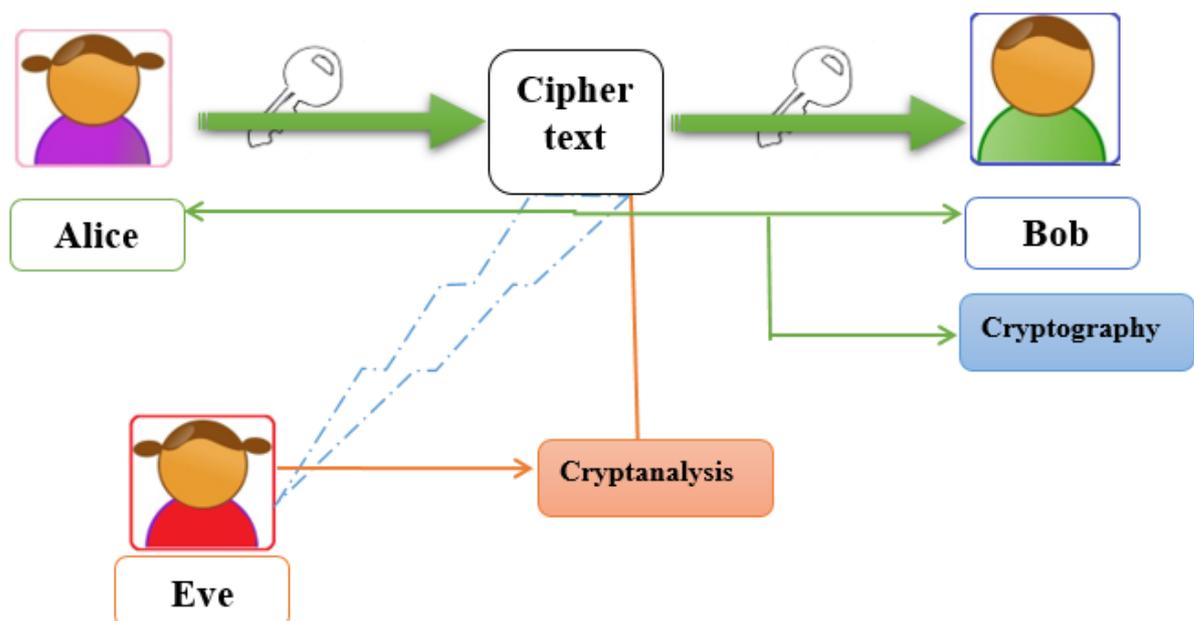
Figure 1.11 illustrates how a secure communication should be. However, how can a story be good without the bad guys? What Alice and Bob are doing seems so typical, as much as it seems boring, same old story repeats itself each time they communicate. The missing link that makes cryptology more interesting is the devilish side and here comes the role of the attackers who will add fun to the party.

D. Eve (The evil side)

The common, well-known, character within this side that cryptanalysts use to illustrate the arch-villain is known as “**Eve**”. The latter is not another random name given to a character, it’s like Alice and Bob, Eve’s name is derived from the word “**Eavesdropper**” (Stamp and Low, 2007). By eavesdropper, it means listening to a conversation without being noticed, it is much more like spying. In cryptology, Eve is considered as the third-party which is not allowed to be

a part of Alice and Bob’s communication. Here, Eve is going to intercept the communication and try to decode the plaintext and sometimes even play the role of Alice or Bob when possible, that is, perform the role of the sender or the receiver. However, Eve’s decoding of Alice’s encrypted message is totally different from that’s of Bob’s, in sense that Eve neither possesses nor obeys any presupposed set of rules. Since Bob uses the pre-shared key to decrypt Alice’s ciphertext, Eve practices cryptanalysis to do the same. Cryptanalysis allows Eve to hack the message without the key, and this what makes cryptanalysis more interesting than cryptography. Figure 07 shows how Eve intercepts Alice and Bob’s communication. According to the Figure, it seems that though communication between Alice and Bob is encrypted, Eve could intercept it and with some luck and a sufficient amount of time she could also decipher the message or even edit it. Since this is the case, where is confidentiality here? How could cryptology provide secrecy and security while another unwanted eavesdropper hack and crack the message? The answer to these questions lies in the strength of the key Alice and Bob agreed to use in encrypting and decrypting their messages.

Figure 1.12: Eve Intercepting Alice and Bob’s Communication



To make a safe encrypted communication one must strengthen the key in doing so. In this case, both Alice and Bob's cryptology process must respect the following conditions:

- The secrecy of the key when sharing it,
- The size of the encryption/decryption key, and
- How they all work together.

What enables Eve to decipher Alice's ciphertext is to look for weaknesses within the message. For example, there are some people who use their dates of birth as passwords and when they get hacked, they wonder why. What a cryptanalyst does when cracking a message is trying to guess the familiar codes that a cryptologist may use such as: dates of birth, phone numbers, pets' names, zip codes, and so on. Consequently, the first rule in encrypting a message is to use a complicated hard guessed encryption that will take a life time period to decode without the appropriate key.

Cryptology possesses two kinds of keys. The first kind is a key that both the sender and the receiver use to encrypt and decrypt a message. The second kind is a key that is mutually related to another key, that is, one key is used for encryption and another is used for decryption. These types of keys, that cryptology holds, are known as **Symmetric key** and **Asymmetric key**.

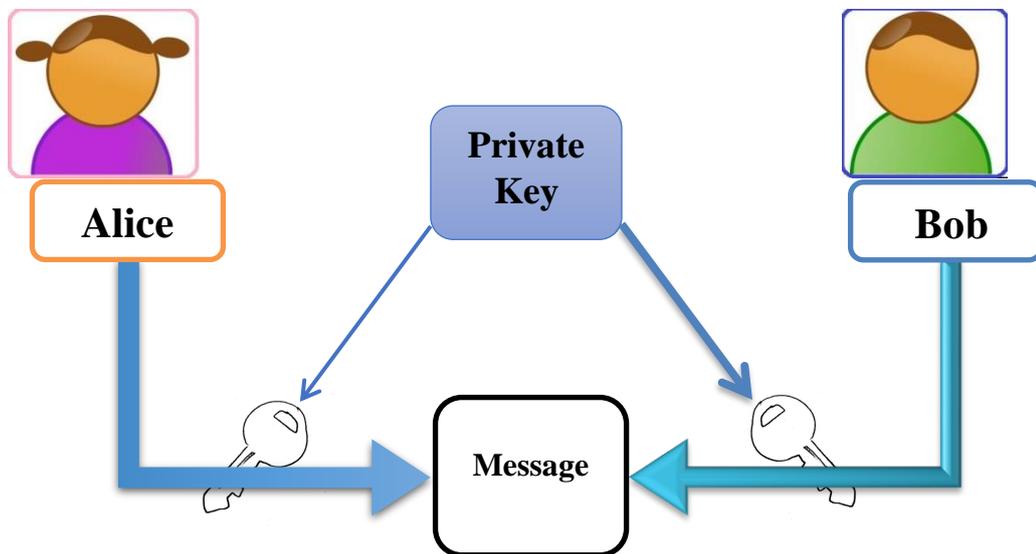
2. Symmetric Key Versus Asymmetric Key

As if the task of understanding cryptology is not complicated enough, the concepts symmetric and asymmetric make such a task even more complicated. However, for better understanding, we are going to use alternative titles instead of symmetric and asymmetric key. In a cryptosystem, symmetric key is known as **private key**, whereas asymmetric is called **public key**.

A. Private Key (Symmetric)

As mentioned before, a private key is a key that both sender (Alice) and receiver (Bob) use to encrypt and decrypt a message. To illustrate how a private key works within a cryptosystem, let us consider the following Figure:

Figure 1. 13: Private Encryption/Decryption Using the Same Keys



This kind of key that is used in a cryptosystem (Figure 1.8) is also known as **secret key**. It is secret in the sense that Alice and Bob must keep it secret and safe from any intruder's hand such as of Eve's. Because if, by any chance, Eve puts her hands on this key, she will be able to decrypt any intercepted message between Alice and Bob that is encrypted with that key.

So far, at a basic level, private key seems an easy, safe, and fast process to accomplish; this is because we have just Alice and Bob as our communicators, so let us add more players to the party and see how things go for the symmetric key.

Figure 1.13 shows that Alice is communicating with Bob using a symmetric key, but what if Alice does not have only Bob as her communicator? This means; what if Alice has to communicate with Dave, Norman and Charley? In this case, Alice must have four separated symmetric keys, one for each correspondent. Up to now, this may not sound like a great deal, but what if Alice has to communicate with dozens of people or maybe hundreds. It would be difficult for her to keep a track and to use the correct key to correspond to every mate as each correspondent needs his/her own private key in decrypting a message. In this case, Alice will get older before she can scratch her head; it is so difficult to maintain and it is time-consuming.

Another Achilles' heel that puts the private key down on its knees is that the whole process is dependent on how the correspondents secure and protect their keys. What guarantees does Alice have to make sure that all her communicators are securing their private keys? Because if any key gets compromised, chickens would come home to roost. First of all, a key could be compromised when Alice wants to communicate with Bob for the first time; she has to figure out a secured way to get the key to Bob, because mailing it or sending it to him with another person is not quite safe at all. Second of all, the key could be compromised when updating the key for any reason. What adds fuel to fire is that if Eve intercepts Alice and Bob's communication, she cannot just decrypt the message but she can also play the role of one of them whether on the behalf of Alice or Bob, and here, Eve would be more dangerous than ever. In this respect, it is important to shed light on the fact that symmetric key though it delivers confidentiality, it does not offer authenticity. So, to recapitulate the pros and the cons of the symmetric key, we are going to say that the private key has strengths as well as weaknesses as demonstrated below:

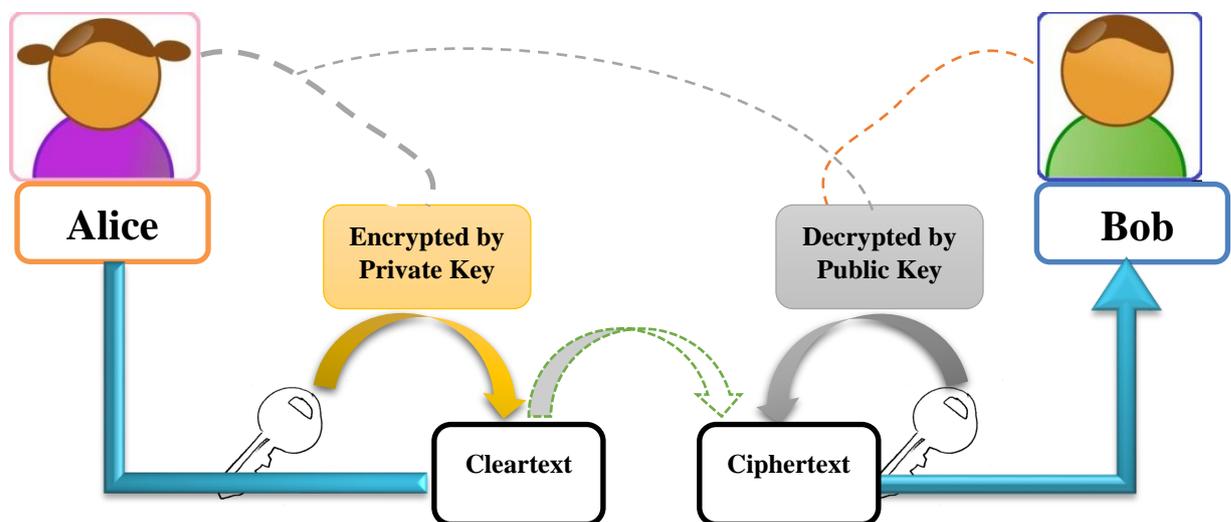
❖ Strengths

- Much faster and easier to use than asymmetric key.
- Hard for eavesdroppers to decode if using a large complex key.
- ❖ Weaknesses
 - The delivery of the key requires a secure mechanism.
 - The number of keys grows exponentially depending on the number of correspondents.
 - The receiver cannot say if the sender is the right person, no authentication provided.

B. Public Key (Asymmetric)

Similarly, to symmetric key, public key is a key that is used between two persons (Alice and Bob) however, in contrast to private key, asymmetric key consists or is made up of a pair of keys; one public and the other private. These two keys are related to each other, but no one comes from the other. Figure 1.14 exemplifies an asymmetric cryptosystem.

Figure 1.14: Asymmetric Encryption/Decryption Using Different Keys



In addition to what Figure 1.14 illustrates, we can, also, understand that the key that Alice uses to encrypt the message is totally different from that is of Bob's when decrypting the message. So, if Alice uses a private key to encrypt a message, the receiver Bob must have Alice's public key to decrypt that message. The process is like a '*catch 22 situation*' (Blake 2010), which means that if Bob wants to reply to Alice; all he needs to do is to encrypt the message with Alice's public key, the same key that he used to decrypt the first message, and then Alice can decrypt Bob's reply with her private key. This kind of cryptosystem is much more secure than the former one; it prevents Eve from decrypting the message so easily because it is impossible to decrypt a message using the same key while it is encrypted with an asymmetric cryptosystem. (Wobst & Shafir, 2007)

Unlike symmetric key which provides confidentiality but no authentication, asymmetric key provides both; since Alice can encrypt her message using a private key and Bob can decrypt it using her public key. In this case, Bob can make sure that the message really came from Alice, because the key that is used to encrypt the message works compatibly with the one that is used to decrypt it. In this case, Eve must have both keys to decrypt the message or take part in the communication otherwise she will not have a leg to stand on. Now, this operation can take another version; Bob can also use his private key to encrypt his reply to Alice instead of using hers, as in the first operation, but why would he do that? He wants her to know and to make sure that the response really came from Bob. Indeed, if he encrypts his message with Alice's Public key, this would not provide authentication. In this case, she has to use Bob's public key to decrypt his response, thus both sides can be certain that they are communicating with each other and no one else which means that their cryptosystem is solid and safe.

For those who are not familiar with the field of cryptography, these symmetric and asymmetric cryptosystems are so much smoke and mirrors. The following tips will make things much clear:

- ✧ Both keys, private and public, are used to encrypt and decrypt a message.
- ✧ If a message is coded with a private key it cannot be decrypted with another private key, it must be a corresponding public key.
- ✧ If data is ciphered with public key; it needs a compatible private key to decipher it.
- ✧ Asymmetric key is slower than symmetric key, but it provides confidentiality and authentication.
- ✧ Public key is much easier in distribution than the private one, because its encryption and decryption require two keys (private and public).

IV. TYPES OF CRYPTOLOGY

Like any kind of science, cryptography has its own methods and approaches in dealing with its inquiries, so to speak, encrypting and decrypting messages. In this regard, cryptology has witnessed an interesting set of methods, however, this section will just present and illustrate some of the most known types of cryptologic tools used through time.

1. Spartan's Skytel

One of the oldest ways of encrypting and hiding a message can be seen at the Spartans 5th century BCE. The latter are considered to be The Spartans, the warlike of the Greeks who established the first military system of cryptology. They created a kind of device called "Scytale/Skytale". This kind of securing a communication consists of a staff wood and a strip

of papyrus wrapped around it (Wobst & Shafir, 2007). The plaintext is written on the parchment from left to right and then unwound. The ciphertext is the disconnected letters on the strip that make no sense unless it is rewrapped around a staff of the same thickness as the first one. See Figure 1.15.

Figure 1.15: The Spartan's Skytel



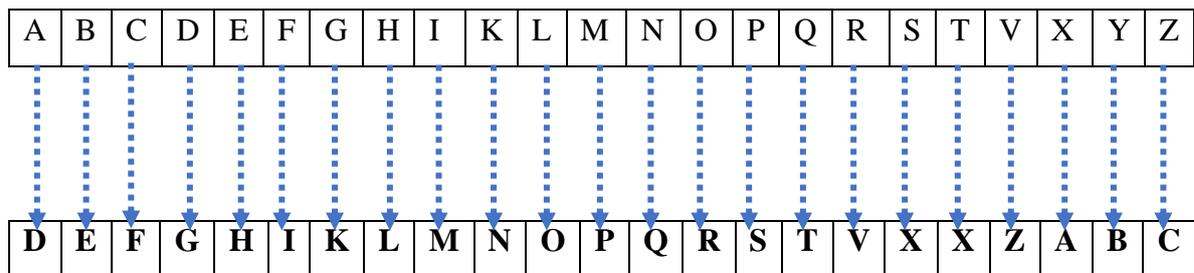
Note: Reprinted from ABC Cryptography (Picture Story). (2017, March 10). Retrieved January 18, 2016, from <https://ammarhasayen.com/2013/10/02/abc-cryptography-picture-story/>

2. Caesar's Cipher (Substitution Cipher)

The Roman Empire also took part in inventing new methods in cryptography. In this respect, the pioneer of this method is called Julius Caesar, therefore, the method is named after him 'Caesar's Cipher'. To understand how this method works, (Paar & Pelzl, 2010) explain that: "The Caesar cipher simply shifts the letters in the alphabet by a constant number of steps. When the end of the alphabet is reached, the letters repeat in a cyclic way, similar to numbers in modular arithmetic." (p.13). To put it differently, what Caesar did is that he substituted each letter with the letter three places beyond it, the method was quite simple: each letter has a value

of another letter which is located three steps away. Figure 1.16 below shows an illustration of the full encipherment.

Figure 1.16: Caesar Substitution Cipher



Note: Cited in Bauer (2013, p.11)

According to the Figure above, the letter **A** takes the value of the letter **D**, **B** becomes **E**, **C** becomes **F**, and so on. The following example is a passage taken from Caesar’s letter to Cicero (a Roman philosopher) where he enciphered it using a substitution cipher. However, before getting into the content of the message, there are some notes concerning the Roman alphabet that one needs to be familiar with. Unlike the English alphabet, the Roman alphabet consists of 23 letters; the missing letters comparing to the English ones are: *j, u, or w*. Phonetically speaking, some Roman letters had the value of others according to their position in a word as in: the letter ‘*i*’ has the value of [i] and value of [y], and the letter ‘*v*’ has the value [u] and [w]. The letter ‘*k*’ does not exist in the list of the Roman alphabet, but it is included for the sake of translating Greek words. (Blake, 2010, p.83).

The passage that is going to be used to illustrate how Caesar, personally, enciphered his message is presented in the original language, that is Latin, which is translated into English as the following in which he said, ‘*Let this be the new way of conquering that we fortify our position by mercy and generosity.*’ (translated by Blake 2010). According to Blake (2010, p83)

to separate the plaintext from ciphertext, the convention of using lower case for cleartext and capitals for encrypted text is as follows:

➤ Plaintext:

haec nova sit ratio vincendi vt misericordia et liberalitate nos mvniamvs

➤ Ciphertext:

LDHF QRZD XMX ZMQHQGM ZX PMXHVMFRVGMD HX
 OMEHVDOMXDXH QRX PZQMDPZX

Caesar’s cipher needs a key to know how the substitution must be executed. In this case, the key to the example above is illustrated in Figure 1.16 above, if we compare the plaintext with the key, we are going to get the same result as in the ciphered text: ‘*h*’ equals ‘*L*’, ‘*a*’ equals ‘*D*’, ‘*e*’ equals ‘*H*’, and so on. This method had its heydays during the era of the Roman Empire as most people could not read and whenever they found a message written in this way ‘LDHF QRZD XMX ZMQHQGM ZX PMXHVMFRVGMD HX OMEHVDOMXDXH QRX PZQMDPZX’ they would think that it is written in another language. However, as time was getting old, this method got full of days as people started to know about writing and reading, therefore, Caesar’s cipher lost its effect as its encryption got vulnerable.

A. The Vigenère Square

The Vigenère method of encryption is inspired from Caesar’s cipher, a more secure method was invented by the French diplomat Blaise de Vigenère (1523– 1596). In this respect, Kipper (2004) confirms: “Blaise de Vigenere made further advances in the polyalphabetic substitution system. Studying the works of Trithemius, Cardano, and Porta, he was the first to create the auto-key system of cryptography, which was forgotten until it was reinvented in the nineteenth

century” (p.36). To put it differently, the Figure below presents a **polyalphabetic** cipher, twenty-six different letters are used repeatedly to form a ‘Vigenère square’:

Figure 1.17: The Vigenère square

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A
C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B
D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C
E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D
F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E
G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F
H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G
I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H
J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I
K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J
L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K
M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L
N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M
O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N
P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y

Note: Cited in Kippenhahn (1999, p.111)

The process of encrypting a message using a polyalphabetic cipher works as follows. Let us assume that Alice wants to encipher the plaintext CRYPTOLOGY using the key CIPHER. In this case, she is going to look for the first letter of the cleartext in the first, vertical, column and find the first letter of the key in the first horizontal line, however, since the keyword is shorter than the plaintext, as in this case, it is repeated as many times as it takes to match the number

of letters of the cleartext. The matching point between the two will give us the first letter of the ciphertext, let us consider Table 1.1:

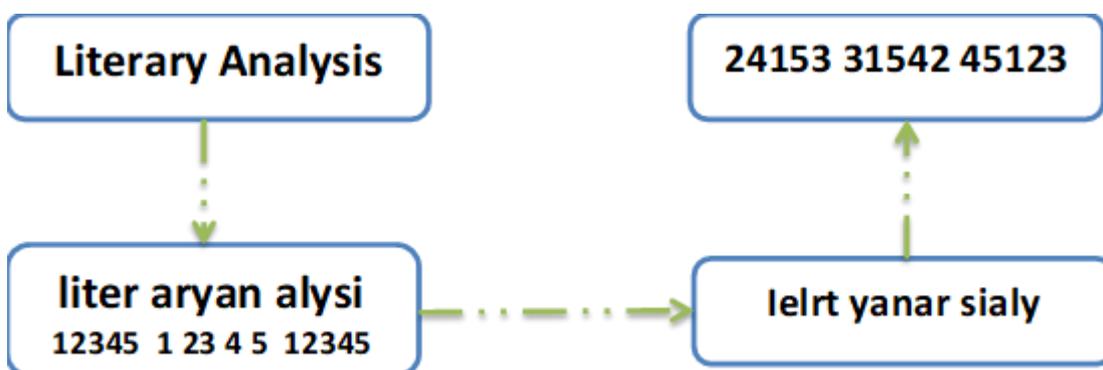
Table 1.1: Enciphering and Deciphering Using Vigenère Cipher

Key	<i>C</i>	<i>I</i>	<i>P</i>	<i>H</i>	<i>E</i>	<i>R</i>	<i>C</i>	<i>I</i>	<i>P</i>	<i>H</i>
Plain	C	R	Y	P	T	O	L	O	G	Y
Cipher	E	Z	N	W	X	F	N	W	V	F

B. Transposition Cipher

The other method of enciphering is called transposition cipher, where permutation is used. Unlike substitution method which is the replacement of one letter by another, transposition method works by transposing the letters of the plaintext, that is to say, scrambling them to form an enciphered text (Stinson, 2002, p.22). The Figure below exemplifies the method. However, this is just a simplistic example of permutation to facilitate the understanding for the reader, far away from today’s sophisticated algorithms.

Figure 1.18: Enciphering and Deciphering Using Transposition Method



The transposition cipher, as shown above, works by dividing the plaintext in five letters row, as shown in Figure 1.18: *liter aryan alysi*. To complete the sequence, Blake (2010) suggests that four null letters should be added at the end. In this case the intended recipient should receive the encrypted message as follows: '*Ielrt yanar sialy*' however, he must possess the key which determines how the transposition is carried out.

For a much more secured communication cryptologists combined both Caesar cipher and transposition cipher. This way, it will take more than a lucky guess for the attackers to decipher the plaintext. The combined method (substitution and permutation) works by, first, enciphering a plaintext with Caesar cipher, then the result of the encryption (ciphertext) is considered as the cleartext when enciphering it with a permutation technique. To decipher such an encryption the recipient must possess two different keys.

3. Playfair Cipher

The aforementioned types of ciphers that have been dealt with so far, are named according to their creators, and the playfair cipher is no exception. The latter, is named after the Englishman L. Playfair (1854) and it was considered as one of the most used cryptologic way of communication by the British in World War I (Tilborg, 2000, p.20). What is interesting about this method is that it is hard for anyone to decrypt the encrypted message without having the keyword.

The use of playfair encoding can be seen in two ways; in the first way, the encryption is done without the keyword, whereby, it makes the decryption so easy to be hacked by a third party. On the other hand, in the second method, the encryption is done with the use of a

keyword, whereby, the latter can be replaced by another one in case the first key is compromised. (Videos by Kevin, 2018, 19:17).

As mentioned before, the first method works without the use of the key word, but before delving into the deep of this method, first, one needs to understand the theoretical process of playfair cipher. Consequently, this encryption method does not require any technological equipment nor complicated encrypting/decrypting software; all that it is required to make a coded message is; (i) a plaintext that needs to be ciphered, (ii) a piece of paper with a (5x5) grid filled up with the English alphabet (see Figure below).

Figure 1.19: The Playfair Cipher (Without the Keyword)

A	B	C	D	E
F	G	I	H	K
L	M	N	O	P
Q	R	S	T	U
V	W	X	Y	Z

Note: Retrieved from Videos by Kevin. (2018). Playfair Cipher [Video file]. Retrieved from <https://www.youtube.com/watch?v=-KjFbTK1IIw>

The Figure 1.19 shows 25 English alphabet letters put in a (5 × 5) matrix row, however, if one pays attention, s/he will see that the letter ‘j’ is missing. The omission of the letter ‘j’ is done on purpose; Tilborg (2000) confirms: ‘One has to identify the letters *i* and *j*’ (p.20). As a matter of fact, it is not necessary to omit the letter ‘j’ it depends on the message you want to encrypt, in this case the sender must omit the letter less frequent such as ‘x’ or ‘z’ or ‘q’.

For a better understanding of how to encrypt a given message using the grid in Figure 1.19, let us take, first, two letters such as ‘MO’, ‘HT’, and ‘IV’. What is interesting about these letters is that since they operate on two-grams in which they match at least one of the following options:

- They are in the same row (horizontal)
- They are in the same column (Vertical)
- They form the corners of a box

The Figure below shows (with colours) the aforementioned options relating the pairs selected before, where the green colour shows that the letters are in the same row, the blue colour shows that they are in the same column, and the red one shows how they form the corners of a box size.

Figure 1.20: The Playfair Cipher (2-Grams Operation)

A	B	C	D	E
F	G	I	H	K
L	M	N	O	P
Q	R	S	T	U
V	W	X	Y	Z

In this respect, the playfair cipher works as follows; the pair letters ‘MO’ are coded according the next right letter, so to speak, ‘M’ becomes ‘N’ because ‘N’ is located in the right box of ‘M’ and ‘O’ become ‘P’. As far as the letters ‘HT’ are concerned, each letter is coded

according to the letter below it in the grid, thus, ‘H’ become ‘O’ and ‘T’ becomes ‘Y’. At last, the letters ‘IV’ form the corners of a box, as shown in the Figure above, whereby, their coding is related to the letter that is horizontally left and right on the opposite corner of the box. Thus, ‘I’ becomes ‘F’ and ‘V’ becomes ‘X’.

To exemplify what has been discussed earlier, let us consider the following example using the message ‘*Did you receive the package*’. The first thing to do is to rewrite the message without any spacing: *DIDYOURECEIVETHEPACKAGE*. Second, divide the message in pairs, meaning, put every two letters together: *DI-DY-OU-RE-CE-IV-ET-HE-PA-CK-AG-E*. In this case there are 11 pairs yet the last letter ‘E’ is left solo, therefore, the letter ‘X’ is added to fill the blank, and it is used for two other reasons; (i) shows to the receiver the end of the message, and (ii) in case a word has a double letter such as ‘pp’, ‘ee’, ‘tt’...etc. the second letter is replaced by an ‘X’.

According to Figure 1.20, the coding of the example is as follows:

CLEARTEXT: **DI DY OU RE IV ET HE PA CK AG EX**
CODING: **CH HD PT UB FX DU DK LE EI BF CZ**

In this respect, the clear text is transformed from *DIDYOURECEIVETHEPACKAGE* to *CHHDPTUBFXDUDKLEEIBFCZ*. In this case, if a third party intercepts the message, he may find difficulties in hacking the coded message. However, if he finds out which type of encryption method is used, which is playfair method in this case, everything will become easy for him, because the grid has the standard English alphabet.

To make the playfair encryption method more complicated and difficult for any outside attacks, the sender and the receiver must agree on a key word. The latter, is used to complicate the playfair grid. In this regard, the word ‘stylistics’ is used as a keyword for the next encoding example:

Figure 1 21: The Playfair Cipher (The Keyword – DREAM)

D	R	E	A	M
B	C	F	G	I
H	K	L	N	O
P	Q	S	T	U
V	W	X	Y	Z

What is interesting about this method is that no third party can compromise the confidentiality of the message unless s/he discovers the keyword. In addition to that, what makes it more complicated is that the sender cannot repeat any letter used in the keyword, this will scramble the order of the alphabet inside the grid. To illustrate how it works, the same example is encrypted, but with the use of the keyword this time

CLEAR TEXT: *DIDYOURECEIVETHEPACKAGE*

CODING WITHOUT THE KEY: CHHDPTUBFXDUDKLEEIBFCZ

CODING WITH THE KEY: MBAVUZEABZASLDTDKQGNFE

V. Cryptography and Literature

The word contagious, probably, is one of many adjectives that could possibly describe the field of cryptology. The latter is like a virus, spreading among all kinds of fields: science, media, politics, economy, even religion and the field of literature is no exception. Literature itself did not leave any ground without influencing it and giving it a taste of its own aesthetics features. Cryptology is no stranger to literary writers; many iconic novelists and poets possess cryptologic systems; naming for example Edgar Allan Poe's (1843) '*The Golden Bug*', Jules Verne's (1864) '*A Journey to the Centre of the World*' and Arthur Conan Doyle's (1903) '*The Adventure of the Dancing Man*' and so many others. however, this section presents Poe's short story as a specimen to show how literature and cryptology are interrelated.

1. Edgar Allan Poe's '*The Golden Bug*'

A. Poe and Cryptology

The American Edgar Allan Poe (1809-1849) is considered as one of the earliest literary writers who showed interest in the field of cryptography, whereby in 1839 he issued an open challenge for his readers to send monoalphabetic ciphers for him to decipher: 'Let any one address us a letter in this way, and we pledge ourselves to read it forthwith-however unusual or arbitrary may be the characters employed.' (as cited in Bauer, 2016, p.15). Interestingly, his readers accepted the invitation and sent him encrypted texts that Poe solved almost all of them except for some which did not consist of monoalphabetic encryptions, but they rather included 'signs arbitrarily strung together' (Kippenhahn, 1999, p.85).

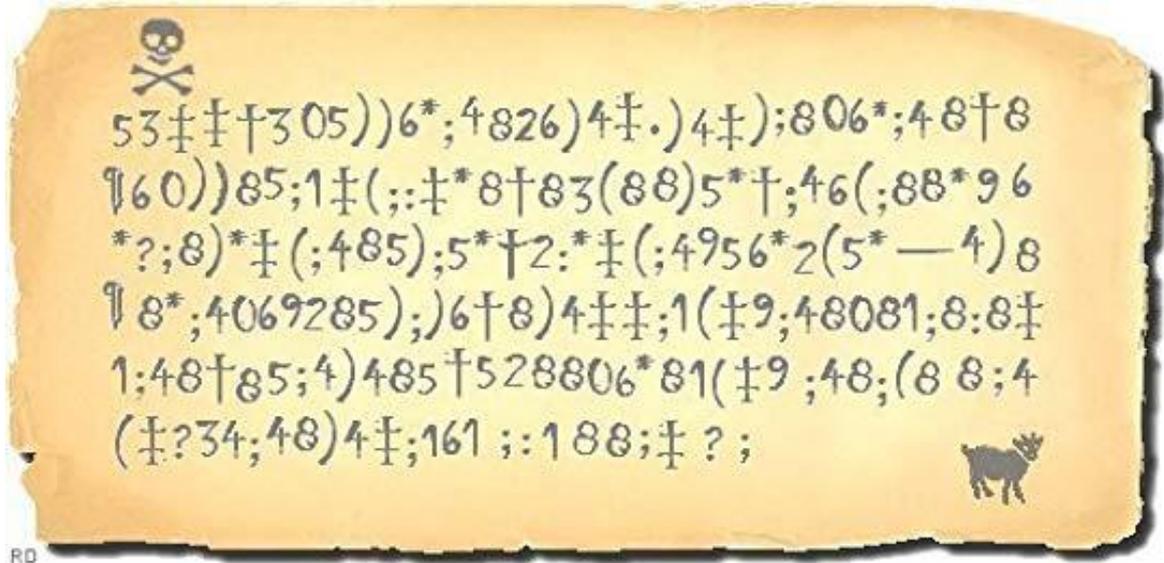
Poe had made a name for himself in his era as a cryptanalyst, he deciphered nearly all the encrypted texts that were sent to him by his readers using his own intuition. For that matter,

Kippenhahn (1999) asserts: ‘Eyewitnesses claimed that he often took less time deciphering a text than its encoders had needed to encode it. It is thought that Poe's success in deciphering was based mainly on intuition.’ (p.85). Consequently, Poe (2009) made a claim in his short story ‘*The Golden Bug*’ (1843) which is considered as Poe’s famous quote about cryptology: ‘it may well be doubted whether human ingenuity can construct an enigma of the kind which human ingenuity may not, by proper application, resolve.’ (p.144). However, this claim cannot be true as within the field of cryptology there are more complicated and sophisticated ciphers that cannot be deciphered, especially with the advance of the field of cryptography. In this case, Bauer (2016) comments that Poe’s claim ‘is in error...there is a theoretically unbreakable cipher.’ (p.17).

B. Cryptology in ‘The Golden Bug’

Poe’s short story (1843) ‘*The Golden Bug*’ is a story about the narrator’s friend William Legrand; a descendant of an old Huguenot wealthy family of New Orleans, who after a series of misfortunes moved to live with his servant Jupiter in a hut on Sullivan’s Island, nine miles from Charleston, South Carolina. The story is about a golden bug and an encrypted script that Legrand found which he believed that it belongs to Captain Kidd’s hidden treasure, however, the road to that treasure is not a red carpet as Legrand has to decode the enciphered code that he found which goes as follows:

Figure 1.22: Captain Kidd's Coded Message in Poe's Tale 'The Golden-Bug'



Note: Reprinted from Orient. (2016, January 12). *The Gold Bug* by Edgar Allan Poe, Tobias Hill [Digital image]. Retrieved January 20, 2018, from https://i.gr-assets.com/images/S/compressed.photo.goodreads.com/hostedimages/1465800095i/19400971._SX540_.jpg

Before we delve into the murky waters of how Legrand deciphered the enciphered manuscript that he found on a parchment and which cryptologic technique he used, it is worth pointing that Poe used a couple of approaches. The first one is steganography and the second one is monoalphabetic cryptosystem, where the former is vividly seen in many passages as Poe (2009) reveals in the initial part of the story:

He received the paper very peevishly, and was about to crumple it, apparently to throw it in the fire, when a casual glance at the design seemed suddenly to rivet his attention. In an instant his face grew violently red — in another as excessively pale. For some minutes he continued to scrutinize the drawing minutely

where he sat. At length he arose, took a candle from the Table, and proceeded to seat himself upon a sea-chest in the farthest corner of the room. Here again he made an anxious examination of the paper; turning it in all directions. (p. 94)

And in the middle part where Legrand and his two friends (Jupiter and the narrator) were following the leads of the map (Poe, 2009):

I held the vellum again to the fire, after increasing the heat; but nothing appeared. I now thought it possible that the coating of dirt might have something to do with the failure; so I carefully rinsed the parchment by pouring warm water over it, and, having done this, I placed it in a tin pan, with the skull downwards, and put the pan upon a furnace of lighted charcoal. In a few minutes, the pan having become thoroughly heated, I removed the slip, and, to my inexpressible joy, found it spotted, in several places, with what appeared to be Figures arranged in lines. Again I placed it in the pan, and suffered it to remain another minute. Upon taking it off, the whole was just as you see it now. (p. 113)

Let us clarify how the abovementioned passages point at steganography. In the first passage, the narrator informs the readers how Legrand's face became red when he noticed that the parchment had an invisible passage that can be seen only when there is a suitable degree of heat. In the second passage, the narrator explains the operation of turning the invisible ink to visible. (*Section (3.1.a) provides further explanation of different methods to reveal an invisible ink*).

The second technique of cryptology that Poe put in the short story is the technique of cryptanalysis, which is, so to speak, decrypting the coded message without the key. To put it otherwise, cryptanalysis is the hacking of any secured communication without using the key of encryption. To recapitulate what happened in the story, Legrand discovered the hidden code on the parchment by accident; he did not know that the parchment included a hidden message and he was about to burn it due to the mocking comments that the narrator gave him on his bug drawing skills. To this end, there is no use of cryptanalysis whatsoever, however, when Legrand found out about the coded message as shown in Figure 1.22, he realized that he is facing the dilemma of figuring out what all those numbers and symbols refer to.

The first procedure that Legrand undertook was trying to know which language the coded message belonged to, in light of this, Kippenhahn, (1999) explains:

In one corner of the parchment, the drawing of a young Billy goat can be made out: a kid. From this, and from the circumstances in which he found the parchment, Legrand concludes that it must be a message from Captain Kidd. It seems reasonable to assume therefore that the plaintext is in English. (p.85)

As asserted in **section 4**, alphabetic letters, in any language, have a set of frequencies of occurrence, each letter is rated according to its use. In this case, the coded message is written in English, therefore, Legrand tried to see how many times each symbol/number occurs starting from the predominant to the least frequent. In this regard, Legrand came up with the following Table:

Table 1.2: Legrand’s Decryption of Captain Kidd’s Coded Message

Of the character	8	There are	33
”	;	”	26
”	4	”	19
”	‡)	”	16
”	*	”	13
”	5	”	12
”	6	”	11
”	† I	”	8
”	o	”	6
”	92	”	5
”	:3	”	4
”	?	”	3
”	¶	”	2
”	-	”	1

Note: As Cited in Poe (2009, p.115)

According to Legrand’s analysis of alphabetic frequency, he concluded that the most frequent letter in the English alphabet is the letter E then come the rest of the less frequent letters, Consequently, Poe wrote (2009):

Now, in English, the letter which most frequently occurs is e.

Afterwards, the succession runs thus: a o i d h n r s t u y c f g l m

w b k p q x z. E predominates so remarkably that an individual sentence of any length is rarely seen, in which it is not the prevailing character. (p. 115)

Legrand assumed that the number **8** represent the letter **E** because it is the most frequent character in the passage and it appears 33 times. In addition to that, any double 8 consequently corresponds to *ee*. Another remark that Legrand noticed is that in the English language, the frequent article *the* should be repeated combination of three characters ending with number **8**. Thus, he realized that the characters **;48** are repeated seven times which led Legrand to conclude that the punctuation symbol **;** represents the letter **T** and number **4** represents the letter **H**.

Since there is no spacing in the coded message, it was quite complicated for Legrand to guess the beginning and the end of the words. So far, the characters that had been solved are: **8**, and **4**. In this respect, the line before the end of the cipher has a **t**, then an unknown symbol **(**, then come two *e*'s, a **f**, and an **h**, that is, t-eeth. Spacing in orthography plays a massive role in determining the beginning and end of words as well as avoiding confusion. Therefore, if we try to replace the empty space in the word **t-eeth** with any of the English alphabet, none of them will give the word a meaningful state. Therefore, Legrand understood that the **th** in this word is not the end of it but the beginning of another word. Hence, the suitable letter to fill the gap in the word **t-ee** is the letter **r** so that it would be the word '*tree*'. To this end, another letter had been deciphered and the character **(** represents the letter **r**.

Throughout the whole passage Legrand followed the same cryptanalysis process trying to guess what each character represents in the English alphabet, and after a thorough analysis he finished all the letters to get what is indicated in the Table below:

Table 1.3: Legrand’s Deciphering Key

5	represents	a
†	”	d
8	”	e
3	”	g
4	”	h
6	”	i
*	”	n
‡	”	o
(”	r
;	”	t
?	”	u

Note: As Cited in Poe (2009, p.117)

The short story ‘the Golden Bug’ by Edgar Allan Poe is considered as one of the first literary works which implement cryptology, and is considered, also, as an inspiration for other literary writers as Brandstatter (2017) asserts:

The Golden-Bug was the first work of fiction to incorporate cryptography into the plot. In fact, the very word cryptograph was invented by Poe and used for the first time in this story. It inspired future cryptologists for generations to come (including William F. Friedman, an American famous in cryptographic circles for

breaking Japan's PURPLE code in WWII), and dozens of writers all over the world. Think Robert Louis Stevenson's Treasure Island, Jun'ichirō Tanizaki's Devils in Daylight, or The Golden Bug Variations by Richard Powers. (para.3)

There is no doubt that the field of cryptography is advanced and sophisticated, for it requires a heavy knowledge of the domain and a special set of computer skills to cope with its level nowadays. Yet, the chapter at hand is merely a preamble as it provides the readers with the basic elements, they need in order to get acquainted with the field which will pave the way for what follows in the next chapters.

CHAPTER TWO: A FUNDAMENTAL STUDY ON STYLE AND STYLISTICS

The domain of literary criticism, in the past few decades, took an interest in studying the use of language in literary works, which turned out to be one of the most complex and multidimensional tasks. In this regard, Spitzer (1988) provided a new approach/method to study the language of literature, whereby, it was based on an accurate statistical study of the techniques of language alongside with a judicious application of linguistic theories. This kind of study has come to what we call now ‘stylistics’ and which is the central focus of the chapter at hand. However, before we delve into the murky waters of stylistics, a section is devoted to the concept of style which plays a massive role in the field of stylistics. In this respect, the author starts by providing some literature about the term style starting with its definition. After that, some of its elements are taken into consideration. Thus, the author moves to provide a preamble to the field of stylistics. To this end, he starts with its terminology, branches, and importance. Furthermore, he moves to explain how to adopt a stylistic analysis and ending with elucidating stylistic levels.

I. THE LINGUISTIC NOTION OF THE TERM STYLE

1. Defining the Term Style

Etymologically, the word ‘style’ is derived from the Latin word ‘*stilus/stylus*’ meaning pointed instrument with a pointed head used for writing (Wales, 2014, p. 397). Interestingly, the concept ‘style’ is considered as one of the most debatable and intractable concepts in the study of language. As a matter of fact, it is a common truth that the concept of style, always, refers to ‘*the way we do things*’; how we dress, how we walk, how we eat, how we sign checks, even how we speak. Most people believe that style is what distinguishes each and every one of

us from the others. This conceptualization of style is what most of us believe to be true, yet and in point of fact, conceptualizing the term style is more complicated than that; especially when it comes to the field of literature. Therefore, Wales (2014) confirms that: “Although style is invoked very frequently... it is very difficult to define.” (p. 397). Indeed, defining what is style is not as simple as what most people believe to be so. Analogously, Enkvist (1973) also believes that “Style is a concept as common as it is elusive. Most of us speak about it even lovingly, though few of us are willing to say precisely what it means.’ (p.11)

The juxtaposition variety of the term style embraces almost every sphere of human endeavours. Interestingly, the English Oxford Dictionary alone has listed about twenty-eight different definitions for the word ‘style’. Given that style is a critical concept, it has been the focus of attention for so many decades (if not centuries), where so many perspectives emerged for the sake of defining it. Henceforth, Crystal and Davy (2013) present a definition where they distinguish ‘at least four commonly occurring senses’ of the term style:

1. Style may refer to some or all of the language habits of one person- as when we talk of Shakespeare’s style (or styles), or the style of James Joyce, or when we discuss questions of disputed authorship...more often, it refers in this way to a selection of language habits, the occasional linguistic idiosyncrasies which characterise an individual’s uniqueness....
2. In a similar way, style may refer to some or all of the habits shared by a group of people at one time, or over a period of time, as when we talk about the style of Augustan poets, the style of

Old English 'heroic' poetry, the style in which civil service forms are written, or styles of public-speaking....

3. Style is given a more restricted meaning when it is used in an evaluative sense, referring to the effectiveness of a mode of expression. This is implied by such popular definitions of style as 'saying the right thing in the most effective way' or as 'good manners'....

4. Partly overlapping with the three senses just outlined is the wide spread use of the word 'style' to refer solely to literary language. Style has long been associated primarily or exclusively with literature, as a characteristic of 'good', 'effective', or 'beautiful' writing.... (p. 09-10)

Leech et al (1982) also gave their definition where they believed that:

Language also varies according to the use to which it is put. While the term dialect is convenient to refer to language variation according to the user, REGISTER can be used to refer to variation according to use (sometimes also known as style). (p. 09)

2. General Characterization on the Term Style

As asserted before, the origin of the term style goes all the way back to Latin language, however, the study of this subject can be rooted to rhetoric. The latter is defined by the Dictionary of Literary Terms & Literary Theory (1999) as: "The art of using language for persuasion, in speaking or writing; especially in oratory" (p, 747). According to classical

tradition, what is meant by oratory is the art of discovering all possible means of persuasion, in other word, the art of creating speech.

The study of style is a matter of perspective, this is why we find different methods to tackle it. Therefore, one of the most spread approaches to study style was the school of structuralism led by the linguist Ferdinand de Saussure (Skubic, 2005). In his study of style Saussure coined three concepts (*langue*, *parole* and *language*) whereby, he (1916) defines *langue* as the code or system of rules used in a common way among users of language. On the other hand, he defines *Parole* as the actualization of the rules which are put into action by the speakers of that language according to the choices they make (p. 205). At last he defines *language* as “A social part of the language, which cannot be neither modified nor created by an individual.” (cited in Raditeč, 2018, p. 484).

Within the linguistic framework, Leech and Short (1981, p. 11) believe that the style of a given author, movement/era, or literary genre can be studied, this is done due to the fact that “style is analysed by listing linguistic characteristics in connection to non-linguistic factors” (as cited in Raditeč, 2018, p. 485). In the hope that, Leech and Short (2007) present three methods to study style: (i) Monism, (ii) Dualism and (iii) Pluralism, however, the focus will be on the first two. According to Leech and Short, it would not be possible to understand what style is unless we deal with the ‘contents’, for them, the latter is very important in all three aforementioned approaches.

A. Monism

According to Wales (2014) monism “is also known as **text** or **aesthetic monism**, a theory of meaning espoused by certain literary critics (e.g. the new critics) and stylisticians (e.g. in critical linguistics), which argues for the inseparability of form and content.” (p. 274) indeed, Leech and Short (2007) believe that style and content cannot be separated, they are indivisible.

This means that “One meaning can be expressed in one manner (rhetoric Figures, such as metaphor, irony etc.) (Raditeč, 2018, p. 485). Henceforth, any changes of style will lead to change of meaning, let’s consider the following example:

- I slept badly
- I suffered from insomnia
- I did not close my eye

(Raditeč, 2018, p. 485)

So, according to monistic perspective, the above-mentioned statements differ in content due to the linguistic choices (style) used by the speaker/writer. Similarly, Flaubert (1857) who is considered as one of the advocates of this view, believes that style is indistinguishable from meaning, according to him, “It is like body and soul: form and content to me are one.” (as cited in Leech and Short (2007, p. 13). This view holds the idea that “style is the outcome of fusion of both form and meaning, and that any alternation in the former entails a change in the latter.” (Ghazalah, 1987, p. 39)

B. Dualism

In dualism it is believed that style and content can be separated. In other words, Raditeč (2018) explains that: “there is a difference between what the author wishes to say and how the idea is told / presented to the reader.” (p. 485). Wales (2014) also confirms that dualism is “based on the premise that form and content can be distinguished in language, and that the same content or ‘meaning’ therefore can be expressed in various ways.” (p. 126). The distinction between style and content explains the fact that style is part of the linguistic choices of how the author writes. Therefore, style is subordinate to the form, which means that different ways of saying something can lead to the same content.

3. Different Perspectives towards the Study of Style

As asserted earlier, the term style has been conflictingly studied according to the perspective adopted. In this regard, different schools of thoughts emerged, whereby, some of them appeared to be overlapping and others seem to be paradoxical. These different views of the term style are explained respectively in subsequent sections.

A. Style as the Moulding of the Message

The view of the term style as ‘the moulding of the message’ is considered as one of the most persevering views. Within this framework, Dryden (1913) defines style in his poem ‘*Annus Mirabilis*’ as an: “Elocution, or art of clothing or adorning thought” (as cited in Hough, 1969, p. 3). Similarly, Coleridge says that style: “Is nothing else but the art of conveying the meaning appropriately and with perspicuity whatever that meaning may be” according to this perspective, style is seen as the “dress of thought” (Ghazalah, 1987) where the focus is more on the content rather than the way it was put. By separating the content from the style, this approach/perspective can be categorized as a ‘dualistic’ method.

The approach at hand had its heydays until some critics degreed with its vision of defining the term style. Ohman (1964), for example, see style as “a way of writing –that is what the word means” (p. 423). For him no matter how many different ways are used to convey a message, the message conveyed remains the same, and those different ways are identified as style. To put it differently, to him, the grammatical form of the sentence/utterance (be it an active voice or passive voice) does not change the meaning. In this respect Ohman (1964) provides the following sentences, yet, the only difference that lies in them is that of style:

- a. When the dinner was over, the senator made a speech.
- b. A speech was made by the senator after the dinner.

B. Style as the Man

This conceptualization of style is considered as one of the most frequently quoted definitions of the term style. As a matter of fact, this conception is translated from Buffon's maxim (1753, p. 43) at the *Académie Française* speech where he defined style as '*le style est l'homme même*' (as cited in Aquilina, 2014, p. 33) which means in English language "Style is man himself". Within this framework, one of the staunchest proponents of this perspective is Middleton (n.d) who considers style as 'the mouthpiece of the writer's own attitudes and feelings. (as cited in Ghazalah, 1987, p. 38) In this respect, Middleton (n.d) defines style as: "A quality of language which communicates precisely emotions and thoughts of emotions or thoughts peculiar to the author" (cited in Wetherill, 1974, p. 133). According to Aquilina (2014) what is meant by 'man' is that it is "being understood here both in the sense of the speaker or author in whom style originates." (p. 33). According to this view, one's use of language is the mirror that faithfully reflects his personality. To this end, Aquilina (2014) that "what man creates reveals who he is." (p. 33).

Other adherents of this view including Ohmann (1964) and Throne (1981) who believe that a writer's / speaker's personality can be accessed through the study of his style, have received massive critics from Stanley (1980), Fish (1980), Herrnstein (n.d) and others who believed that judging a writer's personality through his style does not give justice to the writer nor satisfactory for the reader. (Freeman, 1981).

C. Style as Deviation

This view characterizes style as a departure from the normal use of language system. Bloch (1953) defines style as: "The message carried by the frequency distribution and transitional probabilities of [a discourse's] linguistic features, especially as they differ from those of the same features in the language as a whole' (p. 42). In this regard, Osgood (1960) also defines

style as deviation where he believes that “style is defined as an individual’s deviation from norms for the situations in which he is encoding these deviations being in the statistical properties of those structural features for which there exists some degree of choice in his code” (p. 293). Style as deviation is supported mainly by the Russian formalism school with the publication of Victor Shklovsky’s article ‘*The Resurrection of the Word*’ (1914). Its main practitioners include Shklovsky, Jakobson, Mukarovsky, Troubetsky, Brik, Tomashevsky and Eikhenbaum. Jakobson and a few others founded the Prague Linguistic Circle in Czechoslovakia, better known as the Prague School.

The Prague school believes that there is a distinction between the language of literature (poetic language) and the everyday (standard) language in its being deliberately deviant from the norms of language. Mukarovsky (1971) justifies that deviating from the normal use of language (ordinary language) is necessary because ordinary language fails to reflect the real mood and feeling of a creative writer. Evidently, the function of poetry according to the present theory lies in achieving ‘*foregrounding*’ through breaking the rules of ordinary language. This violation of language norms creates what Malinovsky calls ‘*defamiliarization*’. The latter means deautomatizing a familiar word/phrase against the automatized ordinary language to label certain deviation which has an artistic function and purpose. Supporting practitioners of this view such as Halliday (1973) consider foregrounding as a deviation from the normal use of language, therefore, they consider that writers who do not violate the norms of standard language and stick to its rules in their writings have no style. However, this cannot be totally true for the reason that a writer’s style cannot be restricted particularly to deviation/ breaking the norms of language.

D. Style as Choice

The view of style as choice postulates the idea that a writer has the ability to choose any effective expression in expressing his thoughts and ideas. This view adopts a 'dualistic' method which is based on the distinction between 'what to say' and 'how to say it'. In this respect Ohmann (1959) claims that: "if style does not have to do with ways of doing something, then it is not worth talking about style in the first place" (as cited in Aquilina, 2014, p. 25). Along the same perspective Lang believes that "Style presupposes choice and that only where there are two styles is there one." (p. 178). To put it differently, style as choice suggest the idea that the same content can be expressed in different linguistic form. Brooks and Warner (n.d) support this view by claiming that:

Style is usually within the poet's manner of choosing, ordering and arranging his words. But of course, when one asks on what ground certain words are chosen and ordered, one is raising the whole problem of form. Style, in its larger sense is essentially the same thing as form

(as cited in Enkvist, 1964, p. 15)

What the above quotation indicates is that this view associates style with the selection of linguistic/language structures. A writer, as a user of language, learns language by a given set of linguistic rules which determine the link between form and content/meaning.

The view at hand has witnessed a massive opposition by the monists who believe that different utterances can have the exact same meaning is a myth. Interestingly, Hockett (1958) believes that "Two utterances in the same language which convey approximately the same

information but which are different in their linguistic structures can be said to differ in style” (p. 556).

E. Style as the Emperor’s Clothes

The exponents of this view, including Gray (1969) and Ellis (1974), reject the existence of style. For Gray (1969) style is a deceptive idea similar to the clothes of an emperor, in the sense that his clothes exist merely because the people want to see them. According to Ghazalah (1987) this perspective towards the term style “rejects the study of style as an identification with the author’s individuality, or as latent in manner, or as a choice among synonymous alternatives.” (p. 40). Gray, being an organicist (a person who views the universe and its parts as organic wholes) believes that a literary text is ‘*an organic whole*’ which means that within a literary piece style and expression are inseparable. Ellis (1977) supports this claim by the fact that there are no stylistic facts in a literary text, only linguistic ones. In this regard he (1974) believes that: “... we should not talk of the stylistic function of a linguistic term, but instead of its precise function, or of the style of a piece of language, but instead of precisely what it means and says.” (p. 174)

The view at hand, by no doubt, adopts a monistic approach where style is considered as an existing fact not only in writing and speaking, but also in every aspect of human life. Accordingly, style exists in all types of writings: scientific, political, legal, religious...etc who are mainly distinguished by their writings (Ghazalah, 1987, p. 40). In the domain of literature, literary style, or rather say ‘styles’ according to Carter (1979) are more difficult and complicated because they are mutable and unconventional.

According to what was dealt with regarding the notion of style, hopefully, this section provides, even in a slight manner, a comprehensible understanding of what style is. Therefore,

and as far as this thesis is concerned, the next section deals with the field/scope that approaches style as a literary term, so to speak *Stylistics*.

II. UNDERSTANDING STYLISTICS

1. From Rhetoric to Stylistics

If we step on the stage of history, we are going to find that the birth of the field of stylistics can take us all the way back to ‘*rhetoric*’ of ancient Greece. According to Wales (2014) rhetoric is derived from “*techne rhetorike* ‘art of speech’, originally a discipline concerned with the practical skills of public speaking as a means of persuasion.” (p. 368) At that era scholars believed that language use is mainly an effort in making speeches. Speeches that are informative, cohesive and memorable which are discussed under oratory. The latter is defined by Buehler and Johannesen (1965) as “A memorized, original, persuasive speech and demonstrating qualities of logic, organization, language, and delivery, and producing an effect of eloquence which is far above the ordinary.” (as cited in Al-Mussawi and Al-Husseini, 2009, p. 3).

The intrinsic relationship between the birth of stylistics and traditional rhetoric is vividly seen in Hough’s (1969, pp. 1-4) claim:

The modern study of style, i.e. stylistics, has its roots in classical rhetoric: the ancient art of persuasive speech, which has always had a close affinity with literature, probably because it was regarded as a persuasive discourse, too.... classical rhetoric was prescriptive in that it provided guidance as to how to be persuasive, whereas modern stylistics is descriptive in that it

seeks to point out the linguistic features that can be associated with particular effects.

(as cited in Verdonk, 2010, p 79)

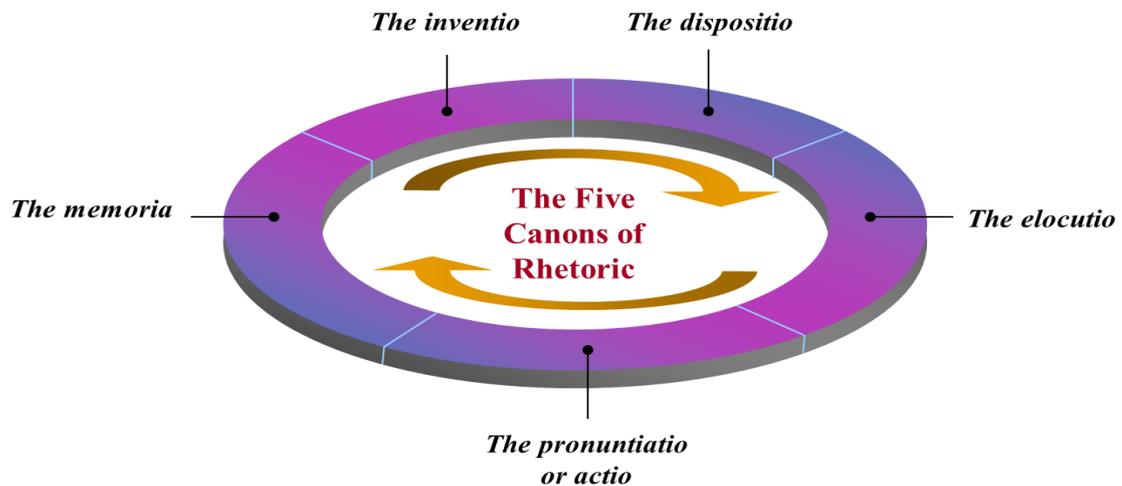
Rhetoric as a practical discipline began with the Greek settlement of Sicily, whereby, persuasive devices are used to embrace, according to Isidore Chukwuma (2010) “mental images, proverbial expressions, apt description, rhythm, repetition, ellipsis, antithesis and parallelism.”

(p. 12). Similarly, Bradford (1997) asserts that:

The best-known names are Corax and Tisias who found that, in an island beset with political and judicial disagreements over land and civil rights, the art of persuasion was a useful and profitable profession. Gorgias, one of their pupils, visited Athens as ambassador and he is generally regarded as the person responsible for piloting rhetoric beyond its judicial function into the spheres of philosophy and literary studies. (p. 2)

Thanks to the discovery of the writing skill, aspects of rhetoric spread throughout poetry and prose. In the latter, efforts are made to blend both the rules of writing/speech with the rules of logic. Certain guidelines are gathered in a poet's/author's material which are listed under the *'five canons'* of rhetoric, which generally are attributed to Corax of Syracuse (Isidore Chukwuma, 2010). According to Phillips (1991) these canons “specify the components of the communication act: inventing and arranging ideas, choosing and delivering clusters of words, and maintaining in memory a storehouse of ideas and repertoire of behaviors.” (p. 70). Figure 2.1 illustrates the five canons of rhetoric:

Figure 2.1: The Five Canons of Rhetoric



According to Nordquist (2019) the aforementioned canons are “the five overlapping offices or divisions of the rhetorical process”. (para. 1). A brief explanation for each canon is given below, the italicized are in Latin language:

✚ *The inventio* (invention):

Invention is considered as the first canon, it deals with searching for materials of persuasion, the writer/speaker gathers the necessary resources for his line of argument. Here, Nordquist (2019) asserts that invention is “the discovery of the resources for persuasion inherent in any given rhetorical problem.” (para. 01).

✚ *The dispositio* (arrangement):

This canon is concerned with organizing the resources, and its process is divided to three levels: (i) **the exordium** which means the introduction or a formal preamble, (ii) **the narration** which is arranged through points of view, proof and regulations. (iii) **the dispositio** which means the conclusion. The aforementioned segments are the basis of today’s academic prose composition of an essay (introduction, body and conclusion). In this manner Nordquist (2018) explains that

“arrangement refers to the parts of a speech or, more broadly, the structure of a text. Arrangement (also called disposition) is one of the five traditional canons or subdivisions of classical rhetorical training. Also known as dispositio, taxis, and organization.” (para. 01)

The elocutio (style)

The canon at hand deals with using the appropriate language to a given audience and context. Nordquist (2017) clarifies that: “In rhetoric and composition, style is narrowly interpreted as those Figures that ornament discourse; it is broadly interpreted as representing a manifestation of the person speaking or writing. All Figures of speech fall within the domain of style.” (para. 02).

The memoria (Memory)

The fourth canon deals with training and improving the mind to safeguard precise recall of a speech. According to Nordquist (2017) this canon “considers methods and devices (including Figures of speech) to aid and improve an orator's ability to remember a speech.” (para. 01)

The actio (delivery)

This type of canon is concerned with the effectiveness of delivering an effective speech. The actio canon requires special set of skills where a speaker or a performer is equipped with arsenal of methods in delivering a speech or an act. For this matter, Nordquist (2018) elucidates that this canon is “concerned with the control of voice and gestures when giving a speech.” (para. 01).

Few centuries down the road, during the second half of the twentieth century, the canon *Elocutio* became what we know now as stylistics. The expansion of the field of stylistics became

prominent thanks to Ferdinand de Saussure's student Charles Bally (1909) who is considered to be the father of the aforementioned field. His main concern was focused on the emotive elements of language and how diction affects the emotion. In this regard, Wales (2014) confirms that: "Stylistics in the twentieth century replaced and expanded on the earlier study of elocutio in rhetoric. Following the publication of a two-volume treatise on French stylistics (*stylistique*) by Charles Bally (1909), a pupil of the structuralist, Ferdinand de Saussure" (p. 399)

2. The Definition of Stylistics

According to Missikova (2003) the word stylistics derived from the Greek '*technē rhetorikē*' meaning the *art of creating speech*. This kind of art was very popular at that time; as it aimed to teach speakers how to create effective and attractive speeches. The concept of stylistics is a melting pot of style and linguistics which means it's a study where we implement linguistic and artistic expressive means and devices in the course of communication studies. However, concerning the definition of stylistics, it differs from one scholar to another based on which perspective it has been approached.

✚ Simpson (2004) defines Stylistics as:

A method of textual interpretation in which primacy of place is assigned to language. The reason why language is so important to stylisticians is because the various forms, patterns and levels that constitute linguistic structure are an important index of the function of the text. (p. 02)

✚ Verdonk (2010) states that Stylistics is "the study of style, can be defined as the analysis of distinctive expression in language and the description of its purpose and effect." (p. 04)

✚ Wynne, (2005) argues that “Stylistics, which may be defined as the study of the language of literature, makes use of various tools of linguistic analysis.” (p. 01)

✚ Malmkjaer, (2003) said that

Stylistics is the study of style in spoken and written text. By style is meant a consistent occurrence in the text of certain items and structures, or types of items and structures, among those offered by the language as a whole. (p. 501)

✚ Crystal and Davy, (2013) asserted that ‘Linguistics is the academic discipline that studies language scientifically, and stylistics, as a part of this discipline, studies certain aspects of language variation.’ (p. 02-03)

✚ Halliday (2002) asserted that

Linguistics is not and will never be the whole of literary analysis, and only the literary analyst—not the linguist—can determine the place of linguistics in literary studies. But if a text is to be described at all, then it should be described properly, by the theories and methods developed in linguistics, whose task is precisely to show how language works. (p. 04)

✚ Widdowson, (1975) claims that stylistics can be seen as a fusion between literary criticism and linguistics, where its morphological making is constructed upon two component ‘style’ and ‘istics’. He argues that stylistics is an analytic tool of relating disciplines and subjects.

One may gather as many definitions as he could get from different scholars concerning the concept of stylistics where most of them vary from one definition to another as their differences lie upon which approach they have been tackling, yet, despite the fact that they

differ; the aim of stylistics remains the same- to study style. At this point, we can say that different types of definitions lead to different types of stylistics. However, before delving into the murky waters of stylistics' branches, it may be useful to point at Enkvist's, (1973) nature of stylistics where he asserted:

We may... regard stylistics as a subdepartment of linguistics and give it a special subsection dealing with the peculiarities of literary texts. We may choose to make stylistics a subdepartment of literary study which may draw on linguistic methods. Or we may regard stylistics as an autonomous discipline which draws freely, and eclectically, on methods from linguistics and from literary study. (p. 27)

What Enkvist (1973) is trying to point out here is that stylistics is a hybrid discipline crisscrossing both literary criticism and linguistics. However, when it comes to linguistics, it is not always an absolute matter that linguistics is a part of stylistics. To make this clear, Leech and Short (1981) agreed that stylistics, in a broad term, is 'the (linguistic) study of style' (p. 11). This means that stylistics could be linguistics or non-linguistics, but as far as this research is concerned, the non-linguistics notion of stylistics is out of our expertise.

3. The Schools of Stylistics

like any scientific movement, stylistics had been influenced by several schools which paved the way for it and contributed to its development; namely New Criticism, Formalism and Prague School, Structuralism, and Modern Linguistics.

A. New Criticism

The early attempts at close study is seen in the works of literature made by Eliot (1920), Richards (1942/1929) and Empson (1930) where their attempts were merely to replace subjective criticism by more objective, practical and analytical approaches. According to them, this approach could make a link between the reader's response and the literary text. This contribution in dealing with literary works frees criticism from impressionism and emotionalism, in this respect, Richards (2014) asserts that: "What criticism most needs is less poeticizing and more detailed analysis and investigation" (p. 365).

To this end, Richards has a group of American academics followers such as Brook & Warren (1938), Ransom (1941), and Blackmur (1957) who were known as the '*New Critics*'. The latter tried to reformulate the meaning of a poem through formal features. New Criticism was concerned with the study of poetry, where it relies on the inseparability between form and content and dealing with the meaning of a work of art in its formal structure. The school of New Criticism offered an approach that gave a refreshing contribution to literary appreciation, by studying literary text's image-cluster, ambiguity, paradox...etc. Fowler (1966) describes this school as: "an admirable environment for the contribution of linguistics to literary criticism" (p. 154).

B. Russian Formalism and Prague School

Both schools, Russian Formalism and Prague School, made a massive contribution in the development of stylistics in the early decades of the twentieth century. They developed a theory of poetics language which had an effective stand in both poetics and stylistics. The exponents of Russian Formalism such as Shklovsky (1917), Prop (1938) and Jakobson (1960) believed that poetics is a distinct science of literature. This triggered the initiative tendency of merging poetics with the field of linguistics.

When Jakobson moved to Prague in 1926, he linked between Russian Formalism and Prague School where he and Mukarovsky were influential members of the Prague School. Both models of the formerly referred to schools were introduced in the two essays of Mukarovsky (1932 – 1971) and Jakobson (1960). Both scholars believed that there is a dichotomy of literary and non-literary language. This dichotomy was vehemently attacked by critics, however, some of the formalist ideas such as foregrounding, estrangement, defamiliarization...etc. are still taken as a reference by stylisticians.

C. Structuralism

Another school of literary theory emerged during the 1960s and the 1970s, so to speak, Structuralism. Fowler (1981) describes it as a “diffuse set of intellectual movement including the French linguistic (*sic*), literary theory, anthropology, the semiotic (*sic*) of language and culture” (p. 14). The structuralist school formulated new approaches which implement linguistic models on literary texts. At this point, text is approached from different consistent perspectives:

- Text is tackled as a sequence of sentences,
- Each sentence can be tackled linguistically
- Or tackled as a unit within a semiotic form (social or cultural)

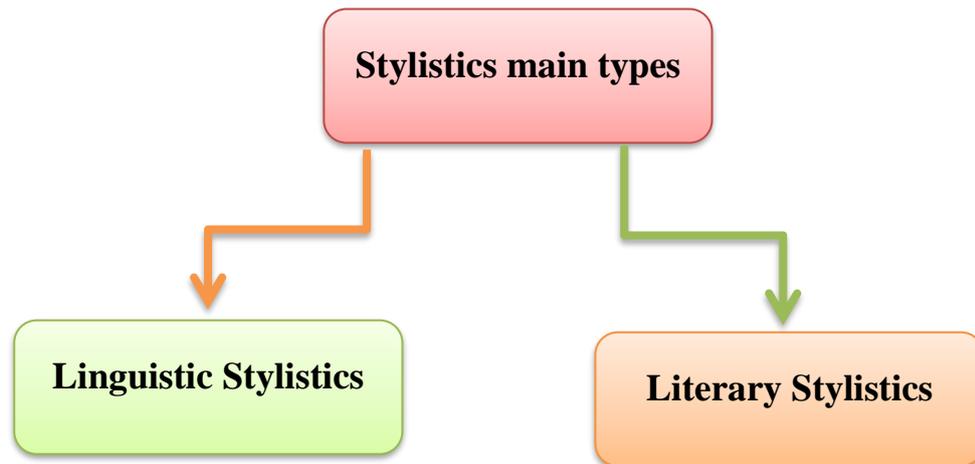
Linguistics itself also paved the way to the development of the domain of stylistics. The switch of traditional prescriptive grammar by the descriptive one gave linguistics interest in the field of literature.

4. Types of Stylistics

When dealing with stylistics in a general term, we can see that it can be divided into two main types (approaches): linguistics stylistics and literary stylistics. Interestingly, those who

are not acquainted with the field of stylistics may use these terms confusingly. As a matter of fact, each type has its own approach; therefore, the former is different from the latter as their difference lies in the way they handle literary interpretations_ meaning analysis.

Figure 2.2: The Main Types of Stylistics



A. Linguistic Stylistics

This kind of approach is considered to be the purest form of stylistics as it aims to seek for the study of style and language variation. The forgoing implies that the focal point of this kind of study is on the use of language and its effects on literary texts. If we take a poem for example, a linguistic analyst would be interested in analysing the form and the function of the language in the poem. In addition to that, paying attention to the meaning that the poem conveys in which the meaning is a very important asset.

B. Literary Stylistics

This kind of stylistics is respectively similar to literary criticism that is primarily concerned with pursuing the individual message of the author in order to make its significance clear to the general public. In other words, the main objective of literary stylistics is to familiarize, or rather decipher, the message coded in the text to unveil its so-called 'true meaning'. The approach

conducted in this type differs completely from the previous type (linguistics stylistics). Literary stylistics is more interested in the figurative and evocative uses of language rather than the signals that the writer constructed. It is also interested in the beauty of language and how it is used to mirror reality, in sense that literary stylistics focuses on the interpretation of a poem, for example, and exposing its aesthetic experience of reality that the poem conveys. Unlike linguistics stylistics, in literary stylistics language system is used only as a means to an end.

C. Other Sub-types of Stylistics

The diversity of the schools that paved the way in the emergence of stylistics leaves some dispute among critics who believe that it is not fair to talk about the schools of stylistics due to the multi-theoretical definitions, terminologies, and methodologies among stylisticians who share the same grounds. In this respect, Taylor (1981) claims that “Theories are often couched in idiosyncratic definitions and terminology which make comparison difficult. Thus, the historian or critic of stylistic theory, looking for underlying constancy of theoretical development, has set himself a difficult task” (p. 42).

More critics of stylistic approach, during the second half of the twentieth century, presented different other types of stylistics (sub-branches). To list the least, (i) Peer (1986) spoke about formalism, structuralism and British stylistics. (ii) Toolan (1990) spoke about both functionalist stylistics and affective stylistics. (iii) Mills (1995) dealt with feminist stylistics. (iv) Weber (1996) conducted a diachronic study on different stylistic theories, where he traced the development/evolution of stylistics starting from the era of Roman Jakobson. To this end, Weber (1996) highlighted seven approaches: functionalist stylistics, affective stylistics, pragmatic stylistics, critical stylistics, pedagogical stylistics, feminist stylistics, feminist stylistics, cognitive stylistic, and critical stylistics. Therefore, the section at hand draws on Weber’s (1996) aforementioned list of stylistic perspectives, alongside with some other stylistic

approaches that Weber neglected such as general stylistics, generative stylistics, statistical and socio-ideological stylistics (Qader Ali, 2005). Below is a quick explanation of some of the abovementioned approaches.

1) *General Stylistics*

In contrary to the aim of stylistics, which is the study of literary works, general stylistics emerged as a disconnected branch, whereby, it does not investigate authors' style, but rather investigates the non-dialectical varieties of languages. Such varieties are found in the language used in newspapers, advertising or TV shows commentaries. Interestingly, Quirk (1969) asserts that "to establish a theory of textual comparison which will explain our recognition of other, broader and socially more generalisable varieties of language than what is referable to the individual" (as cited in Crystal & Davy, 2013)) what Quirk meant is that analysing the distinctive features of a given language, for example, language of an advertisement can help us identify distinctive features of all advertising language. In this respect, Crystal and Davy's *Investigating English Style* (2013) is considered as one of the most important work that deals with general stylistics, whereby, they assert that:

the aim of stylistics is to analyse language habits with the main purpose of identifying from the general mass of linguistic features common to English as used on every conceivable occasion, those features which are restricted to certain kinds of social context; to explain, where possible, why such features have been used, as opposed to other alternatives; and to classify these features into categories based upon a view of their function in the social context. (p. 10)

Crystal and Davy (2013) maintain in the above quotation that in order to tackle a piece of text we should analyse the different linguistic levels so that we can identify the distinctive features naming: dialect, discourse, time, province, individuality, singularity and modality. Moreover, they also stress on the importance of this stylistic branch by which it provides a stylistic model that one can use to analyse a piece of text (spoken or written).

2) *Functional Stylistics*

This type of stylistics was coined by the linguist M.A.K Halliday (1981) in his article entitled: '*Linguistic function and literary style: An Inquiry into the Language of William Golding's 'The Inheritors''*' where he proposed a functional theory. The latter clarifies linguistic structure and linguistic phenomena. Within this linguistic framework, Halliday (1989) presents three Metafunctions of language: (i) ideational (ii) representational (iii) textual. In this respect, Neddar (2017) relates:

These three metafunctions are said to have their origins in Malinowski's notions of context of situation and that of culture (1923, 1935). The ideational metafunction is related to the context of culture, the interpersonal to the context of situation and the textual to the verbal context. (p. 59-60)

According to Halliday (1989), formal features should complete/achieve one of the aforementioned metafunctions in order to be considered stylistically substantial. As a result, Halliday's linguistic framework holds a stable correlation between form and meaning.

3) *Affective Stylistics*

The branch at hand made its appearance in Stanley Fish's article (1980) entitled '*What is Stylistics and Why are They Saying such Terrible Things about it?*' where he considers that

linguistic description as a tool or a means in reaching a literary significance. At this point; he believes that linguistics provides a scientific interpretation, as he (1980) asserts that linguistic description is “An attempt to put criticism on a scientific basis” (p. 70). Interestingly, Fish (1980) disagreed with other linguists on how to approach literary texts using a linguistic perspective. In this respect, Mohamed Ali (2005) asserts that “Fish is critical of Milic (1970), who adopts a statistical approach, Ohmann (1970) and Thorne (1970) who adopt generative approach. He is also critical of Halliday’s functionalist stylistics (1981).” (p. 6). What stylisticians are trying to achieve, according to Fish (1980), is:

to replace the subjectivity of literary studies with objective techniques of description and interpretation its practitioners ignore what is objectively true—that meaning is not the property of a timeless formalism but something acquired in the context of an activity—and therefore they are finally more subjective than the critics they would replace. (p. 89)

In order to give justice to Fish’s perspective towards the field of stylistics; he does not intend to discount himself as a stylisticians. However, his intention is to bring new theory that reshape the aim and the nature of stylistic study. Consequently, he (1980) claims:

I am calling not for the end of stylistics but for a new stylistics, what I have termed elsewhere an “affective” stylistics, in which the focus of attention is shifted from the spatial context of a page and its observable regularities to the temporal context of a mind and its experiences. (p.91)

4) *Pedagogical Stylistics*

This kind of stylistics appeared in the 1970s, it is concerned with the implementation of stylistic analysis into teaching/learning purposes. This means that it helps enhancing the appreciation of literary texts where the analyser of the text uses linguistic patterns to moulder complex sentence into comprehensible ones, altering prosaic forms and hyperbatons into regular forms to facilitate the understanding and interpreting of the text. The practitioners of this branch do not focus on theoretical debate; however, they pay much attention on the fact of treating stylistics as a model of reading that can provide students with methodologies to facilitate their understanding and appreciation of literary texts. For Carter and McCrae 1996, stylistics in a pedagogical area of business which has been accused of tending towards simplicity. This is based on the fact that the purpose of teaching is to make things clear and simple, therefore, stylistics is considered as a positive approach to adopt. On the other hand, Widdowson (1975) claims that stylistics is associated with literary works for two main reasons: (i) the nature of literary language per se and (ii) the importance of stylistics in teaching literature. Consequently, Widdowson believes that implementing stylistics in the process of teaching/learning language creates an intuitive awareness of artistic value.

5) *Feminist Stylistics*

Among the first stylisticians who introduced feminist stylistics are Mills (1995) and (Burton (1996). However, this branch of stylistics can take us all the way back to Virginia Woolf's (1929) literary work '*A Room of One's Own*' where she asserts that:

The essential difference [between men and women] lies in the fact not that men describe battles and women the birth of children, but that each sex describes itself. The first

words in which either a man or a woman is described are generally enough to determine the sex of the writer.

(as cited in Bradford, 1997,
p. 87)

Accordingly, Mills (1996) makes a distinction between male's style and female's style, where she asked a group of students (male and female students) to come up with sentences. In her analysis, she (1995) concluded that: "These sentences can be categorized as male and female according to their stereotypical subject-matter, but also interestingly in terms of some of their linguistic features." (p. 40). In addition to that, in her article '*Knowing Your Place: A Marxist Feminist Stylistic Analysis*' Mills (2018) points at another issue within feminist stylistics, whereby, she sheds light on the problem of '*resisting reading*'. In this regard, Mills (1996) claims that "although texts may address us as males, we as female readers can construct a space of reading which resists the dominant reading." (p. 57). According to Mills (1996) gender plays a significant role in generating different readings, therefore, stylistically women read and observe differently, thus they use different analytic approaches.

We can see from the forgoing branches of stylistics that stylistics is a multidisciplinary discipline per se. This is vividly seen in the work of Nørgaard, Montoro & Busse (2010) '*Key Terms in Stylistics*' where they presented various approaches of stylistics, namely historical stylistics, pragmatic stylistics, film stylistics among other branches.

5. The Importance of Stylistics

Any kind of study has a purpose to achieve, linguistics explains how language is used and how it works to achieve a successful negotiation of meaning, phonetics explains how speech sounds are produced, and stylistics is no exception. Simpson (2004) asserts that:

To do stylistics is to explore language, and, more specifically, to explore creativity in language use. Doing stylistics thereby enriches our ways of thinking about language and, as observed, exploring language offers a substantial purchase on our understanding of (literary) texts. (p.3)

As asserted earlier, stylistic study has aims and goals to achieve, however, is it not an evident task to list them all. Accordingly, Jeffries & McIntyre (2010) assert that:

The aims of stylistic analysis are varied and reflect the rich range of approaches taken to all sorts of text-types and genres. This means that it is not easy to narrowly define what the aims of all stylistic analysis will be. (p. 12)

However, in general, Khader (2011) narrowed the aims of the stylistic study into four aspects which are as follows:

A. Providing a Scientific Study to Literary Texts

Linguistics, by definition, is the scientific study of language (Lyons, 1992), whereby, it provides scientific explanation, based on observation and experiments, on the inner system of language and how it functions throughout a given linguistic perspective; be it social, mental, psychological or others. Hence, since stylistics is considered, according to Wales (2006), as a linguistic branch, where she claims that: “Stylistics could arguably be a branch of text linguistics; and since it uses linguistic frameworks, it could also be seen as a branch of applied linguistics. It is sometimes also called literary stylistics or literary linguistics.” (cited in Mey, 2009) it is believed that implementing linguistic models on literary texts makes readers’ interpretations objective and scientific. In this respect, Walters (2015) asserts that:

Stylistics is the scientific study of style, which can be viewed in several ways. More technically, stylistics is the study of the linguistic features of a literary text _ phonological, lexical, syntactical _ which directly affects the meaning of an utterance. The variety in stylistics is due to the main influences of linguistics & literary. (para. 2)

B. Shaping the Sense of Appropriateness

Based on the fact that language is not a homogeneous phenomenon and as well as no language should be regarded as Crystal & Davy (1969) put it: 'A readily identifiable object in reality which we can isolate and examine' (p. 3). It has been believed that people use language appropriately to each situation they encounter. However, during their daily activities these people change their type of language accordingly with the change of situations and the people they meet.

Most people are acquainted with the terms 'normal' and 'abnormal'. They even use them frequently as in: "*it's normal to do this or that*" or "*it's not normal to do this or that*" but, as a matter of fact, a few understand how these concepts work. Yet, before dealing with what is normal and what is not one should be familiar with the notion of norms. What is meant by norms is the conventional rules and standards that a group of people agreed on; meaning the appropriate behaviour in any daily activity. The definition of the concept of 'norms' is quite similar to the concept of style, word, sentence, or even literature in the sense that linguists/scholars could not provide a definite definition. However, a group of scholars brought to the Table a 'subjective' definition to the inquiry naming: Bloch (1953) identifies it with what he calls, 'determinable facts about the use of language', while Crystal and Davy (2013) and Esua (1974) regard the impartial 'casual conversation/speech' as a norm. Cohen (1968), on the other

hand, considers it as the 'language of science'. Conversely, Cluysenaar (1976) looks at it slightly differently as the language system itself and speech expectations, whereas Bally (1951) views it as the 'language of the abstract'.

it is only on the level of norms a group of people can judge what is normal and what is not.

The following examples illustrate the sense of appropriateness in different situations:

- 'This person doesn't look normal' if we take this utterance and analyse it on the level of appropriateness, we are going to see that the look of this person doesn't look normal prior to the appropriate looking of an acceptable person. In other meaning, we should say that this person is biologically abnormal.
- What would you say to a person who violates the norms of dressing as in coming to his wedding wearing jeans, or coming to work with a pyjama? You could possibly say that this person is out of mind. We may ask why? The answer is because he disobeys the rules of an appropriate way of dressing.

Similarly, language behaviour also has norms. Indeed, as any other human activity, language (in this case, English Language) has its own rules or what linguists and stylisticians call the norms of language. In literary domain, the latter can cause a great disturbance to a non-native reader especially when he/she encounters a stylistic deviation. Deviating from the normal use of language can be more shocking and difficult to a foreign reader than a native one. The latter, native speaker, always has the advantages because he/she is born and brought up in the particular linguistic and cultural setting, thus he/she acquires the language (the mother tongue) and its rules of appropriateness from which he/she can use language in a spontaneously and unconsciously manner. Crystal and Davy (2013) confirm:

The native speaker of English of course has a great deal of intuitive knowledge about linguistic appropriateness and correctness – when to use one variety of language rather than another – which he has amassed over the years. He will probably have little difficulty in using and responding to the most ‘ordinary’ uses of language, such as the everyday conversation which occupies most of our speaking and writing lifetime. Normally, in such a context, mistakes, if they occur, pass by unnoticed or are discounted as unimportant. It is with the relatively infrequently occurring, more specialised uses of language that the average English user may find difficulty. (p. 5)

In contrary to the native speaker, the foreign reader who is absolutely, according to Crystal and Davy (2013) “One of those most at a loss in this matter” (p. 6) does not acquire a foreign language in a natural, intuitive, or instinctive way. What this learner absorbed from the target language is only what he/she learns in English classes; where he/she learns vocabulary, grammar, and sometimes some notions on how to use proper manners such as opening and closing lines in a letter. The intuitive absence of linguistic appropriateness within the foreign learner makes the problem in the case of literature, where deviation from the normal use of language leads to the lack of the appreciation of literature. Because, the correctness of grammar and facility are not enough in dealing with the norms of language, therefore, cultural dimension plays a great role for the adaptation of a foreign speaker in an English situation. In this respect Crystal and Davy (2013) point that:

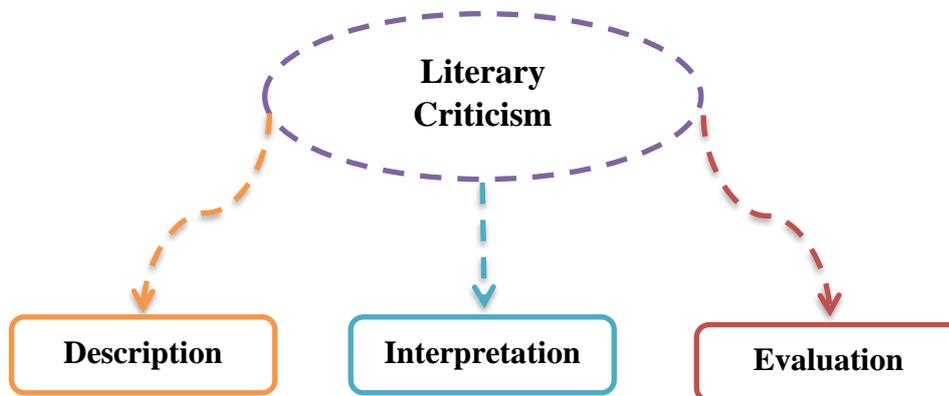
If a foreigner hopes to come to an English-speaking culture, then, he should not be in the position of having to make use of one variety of English in all situations, as so often happens. He needs to be fluent, and fluency should be here measured by his ability to conform in the approved manner to many disparate sociolinguistic situations. He needs to develop a 'sense of style', as it is often called - a semi-instinctive knowledge of linguistic appropriateness and (more important) taboo, which corresponds as closely as possible to the fluent native speaker's. But his ability does not come easily, and in many language-teaching institutions there is insufficient training for it ever to be gained at all. (p.7)

C. Increasing the Understanding and Appreciation of Literary Works

Whenever we try to get a linguistic interpretation of a literary piece, be it a poem or a novel, we have this kind of curiosity of whether a particular meaning or effect has been interpreted, going from top of the literary text to its bottom trying to back up our own interpretation to make it valid. In this respect, stylistics provides a description based on actual features of the text where it replaces a sporadic approach with a systematic one thanks to which the interpreter of the text can cover all that is interesting in the text and so assures that no word that has a significance is ignored.

As illustrated in the Figure 2.3, literary criticism possesses three processes: description, interpretation, and evaluation. These three procedures work as ordered where interpretation comes before evaluation, and description comes before interpretation.

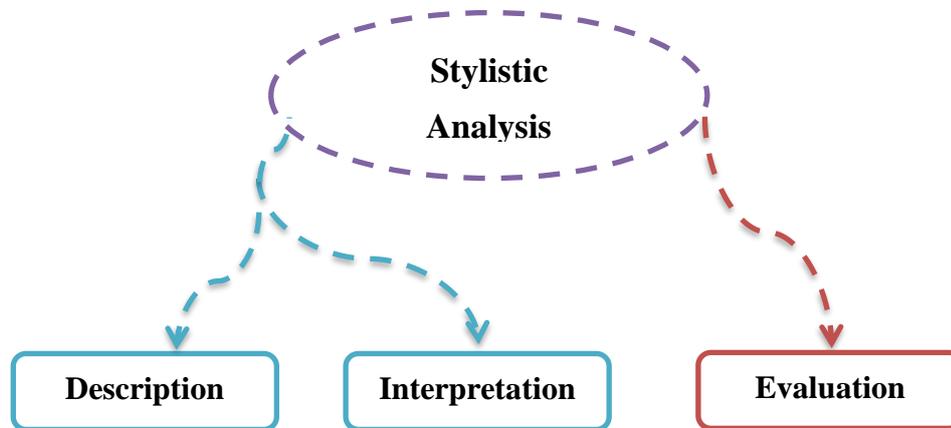
Figure 2.3: Literary Criticism Processes



What these processes mean is that: **description** deals with the (i) description of the object, situation, or content in concrete term. (ii) Report what happened in the interaction, experience, or situation. (iii) Point at what was said? What did you see? And what did you feel when dealing with the text? **Interpretation** is concerned with (i) thinking of possible explanations for what you have observed or experienced when reading the text. (ii) Explaining and interpreting the spoken words and actions. (iii) Spotting adjectives to explain an experience or a situation. (iv) Trying to provide a summary about what you have understood sustaining your argument with cultural information. **Evaluation**, on the other hand, is concerned with (i) the assessment of what you observed and experienced. (ii) What impression did the text let on your personality? (iii) Giving suggestions on what might you do or say if you were a member of the text's character or the writer.

The aforementioned processes work distinctly when dealing with the analysis of literary texts; starting with description and ending with evaluation of the text. However, stylistic analysis starts with linguistic facts, by relating description to interpretation. And formal features to their artistic function. See Figure 2.4.

Figure 2.4: Stylistic Analysis Processes



By using a stylistic analysis on any piece of literature, we are going to extract the choices that the writer uses in his/her way of writing. Indeed, in literary creation, the author is unrestrained regarding linguistic choices. These choices are the switch between one word and another, a structure and another and so forth. In addition to that, those choices can be distinguished into two kinds of choices:

- ❖ First, the breaking of the normal maxims of the linguistic structure which includes the phonological, grammatical, lexical or semantic structures. This process is called **deviation**. The latter is defined in literary language by Leech and Short (2007) as ‘The difference between the normal frequency of a feature, and its frequency in the text or corpus’. (p. 48)
- ❖ Second, the overuse of the same particular linguistic feature, that is to say **repetition**. This kind of choice gives the writer a privilege to use **alliteration** which is the repetition of initial consonant sounds, **assonance**: a close repetition of similar vowel sounds, usually in stressed syllables, and **consonance** which is the close repetition of identical consonant sounds before and after different vowels.

Both of these choices (deviation and repetition) leave a psychological influence on the mind of the reader, by making a feature stand out, they effectually shock and disturb reader’s

schemata. Furthermore, they increase reader's curiosity about the norms of language, and thus incite him to look deeply in order to interpret the text. The merging of the choices at hand, viz deviation and repetition, highlights a linguistic feature in contrast to the background of the norms of language which leads to what is called **foregrounding**. The latter, so to speak, is defined by Havranek (1932) as "...the use of the devices of the language in such a way that this use itself attracts attention and is perceived as uncommon, as deprived of automatization, as de-automatized" (cited in Ghazala, 1987, p. 27) Foregrounding is considered as an important aspect in the stylistic study of literary texts, thus it helps in increasing the appreciation of literary works.

D. Helping to Achieve Adaptation in Translation

The study of stylistics indicates that all languages possess different varieties for different functions, and each variety has its norms, powers, and effects. Hence, while translating, it is not evident to transfer the original meaning of the source text to the target language. Relatively, the outcome of the translated text must be equivalent to the original one in terms of language type and effect. That is to say, a good translation should be able to make the reader feel the power and the natural sense of the target language similar as if he is reading the original text. Thus, if the original text has a humoristic effect the translated text should also have it, if the source text is ironic, the translated text must also be ironic and so forth. In sum, the language of translated text should contain the same characteristic forms and formulas as those of the original language of the text otherwise the reader may get into a misunderstanding of the translated text or the target language loses the impact it has on the reader. In this respect, we shall take for example a translated utterance from Algerian Arabic to English:

- In Algerian linguistic context (particularly religion), to swear with the name of God, has a great influence on both the speaker and the hearer. Both of them know its power, its

appropriate use, and its effect. Hence, the translation of such statement should have the same features and characteristics as the original one. If we use the original text ‘*أقسم بالله العظيم ثلاثا*’ to convince someone that what we are saying is true and honest, its translated version must have the same power of convincing otherwise you can keep swearing till the last breath and no matter how many times as in ‘*I swear to God three times*’.

In this case, when translating a literary text, a great attention should be paid to a cautious understanding of the level of conventionalism the original text belongs to. Stylistic study shows to a reader of a translated language how genuine is its translation and how equivalent its interpretation should be. For that reason, a translator should be aware of all the dimensional aspects of translation naming: linguistic translation, cultural translation, pragmatic translation, and so on.

III. STYLISTIC ANALYSIS AND LITERARY INTERPRETATION

1. Literary Text and the Element of Literariness

By implementing linguistic frameworks on literary works, or rather say, studying literary texts from a linguistic point of view, stylisticians came across a set of buzzing questions: what makes literature literature? Does literature have a language of its own? The answer to these questions led to the emergence of different perspectives. In this respect, Jakobson (1921) coined the term ‘*literariness*’ in his essay ‘*On Realism in Art*’ stating that “the object of study in literary science is not literature but literariness, that is what makes a given work a literary work” (as cited in Abrams, 2009, p. 127) based on this point, this section shall deal with the concept of literariness thoroughly.

According to Cuddon and Preston (1999) literariness is similarly related to defamiliarization, whereby, they state that “literariness is closely associated with what is known

as defamiliarization... both concepts emphasize that the defining features of a literary work reside in its form.” (p. 465). On the other hand, Murfin and Ray (2003) believe that literariness should be defined as:

what makes a work specifically a literary work as opposed to some other kind of work” and that it “requires a foregrounding of language in such a way as to make its “background” (the world it usually refers to) virtually disappear. (p. 236)

To answer the aforementioned question; of what makes a literary work literary? It is quite important to refer to the formalist term *defamiliarization* which is central to the term ‘literariness’. According to the Russian Formalism, defamiliarization is making the familiar unfamiliar or rather say the transformation of text from a familiar form to an unfamiliar one, whereby, readers’ perception is renewed. In this regard, Cook (1996) “defines ‘literariness’ as deviation at the level of language and text. It poses a challenge to the reader’s schemata and may result in schema change.” (cited in Watson, 2008, p. 143) Indeed, by defamiliarization of literary text, authors have to alter and deviate from the normal use of language. Therefore, Shklovsky says that:

The purpose of art is to impart the sensation of things as they are perceived and not as they are known. The technique of art is to make objects ‘unfamiliar’, to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged.

(cited in Rivkin & Ryan, 2013, p. 16)

Accordingly, some may say that it is not necessary to define the term literary for we all know what it means. According to this view, all readers can make a distinction between a literary text and other types of texts, however, this cannot be always the case. Interestingly, Ghazalah (1987) draws the line between what is literary and what is not, whereby, he states five principal criteria thanks to which one can distinguish between literary texts and identify them:

➤ *Function as the literary element*

The criterion at hand defines literature according to the function it seeks to achieve which is the representation of the world beyond itself. In this respect, Ghazalah (1987) asserts that literature is symbolic and should not be taken into its literal meaning. Similarly, Tindall (1955) claims that “symbolism is the necessary condition of literature” (p. 267). However, this view of literariness faces two difficulties; the first difficulty is that literary texts are dealt with for what they represent and not for what they stand for, at this point, Ghazalah (1987) states that: “Literary works are regarded as representatives of something else outside them and are not meant to be understood as standing for what they are.” (p. 4) The second difficulty lies in the strain of whether a lie, a joke and a remark are intended metaphorically or ironically.

Even though literary texts are to some extent symbolic, symbolism is not sufficient to rely on in distinguishing between what is literary or not; this is due to the fact that literariness and symbolism are not identical items.

➤ *Ontology as the literary element*

The fact that function could not make the distinction between what is literary and what is not leads us to wonder if ontology can draw that line. According to the criterion at hand, literature is considered as unreal, in the sense of the fictionality that it possesses. In this respect, fiction as Wellek (2018) puts it “means a denial of truth of immediate correspondence with

reality” (p. 22). Additionally, and within literary framework, Cuddon and Preston (1999) define fiction as “A vague and general term for an imaginative work.” (p. 320)

According to the abovementioned definition literature is equated with fiction, so to speak, literary works are fictional, thus, they do not represent reality. Based on this perspective, fictionality is what distinguishes literary texts from other types of text. In this respect, Ghazalah (1987) claims that the idea of all literary texts is fictional “is misleading because other kinds of writing such as news reports, history books and autobiographies are in one way or another no less fictional than what is conventionally labelled as such” (p. 5). Similarly, Wales (2014) confirms that:

Fiction is most likely to be thought of as a genre consisting of imaginary and imaginative prose... This is fine, as long as we recognize that fictional literature is not all fiction (e.g. some novels may refer to ‘real’ events or people not fictitious); not all literature is fiction (there is poetry and drama as well as the novel, and lyric as well as narrative poetry); nor is all literature fictional (we may study John Donne’s sermons, or the Authorized Version of the Bible as literature). (p. 158-9)

Ingraden (1973) believes that literary texts have a ‘specific reality’ (p. ixviii) which is totally different from the reality that we are familiar with. Additionally, Ghazalah (1987) explains that “literary texts have what can be called a ‘fictional reality’, or in a more proper term a ‘literary reality’ peculiar to them and is not to be confused with the common meaning of reality.” (p. 6). To put it differently, Widdowson (1975) believes that literary texts do not have a pragmatic reference, in the sense that they do not exist in the real world. The only reality that they exist within is the reality that exists in the text and the text only, therefore, Widdowson

(1997) asserts that literary works “are understood, therefore, not in isolation with reference only to the linguistic system, or code, but also with reference to the context in which they appear.”

(p. 27)

➤ *Subject matter as the literary element*

The element at hand, distinguishes literature based on what it is about, whereby, it is considered as the source of knowledge. Respectively, Friedrich Engels (1888) proclaimed that he learned about the French society from Balzac than any other source: “I have learned [from Balzac] than from all the professed historians, economists and statisticians of the period together” (Cited in Heathcote & Watts, 2017, p. 3). Accordingly, Wellek (2018) points to the three suggestions presented by Lamarque & Olsen (1994) in their comprehensive survey ‘*Truth, Fiction, and Literature*’. The first suggestion as Wellek (2018) puts it: “Literary works might help us to know “what it is like” to be (or to be in the situation of) a certain character” (p. 103) at this point, Lamarque & Olsen object to the idea that we gain experiences while reading, as we have our own experiences.

The second suggestion according to Wellek (2018) is that “literary works might enable us to enrich our store of concepts, or they might modify our sense of the application conditions of concepts we already possess, as Catherine Wilson and D.Z. Phillips have suggested.” (p.104) here, Lamarque & Olsen believe that despite the fact that some literary texts really help readers implement new concepts or comprehend their application, this does not mean that a given work has a literary value. In addition to that, they believe that some writers use the same concept in multiple works, in this case readers may not learn something new because they have dealt with the same concept in the author’s first work. However, this does not mean that later works do not have a literary value.

The third suggestion deals with, according to Wellek (2018), the idea that literary works might “help us to become better perceivers of the moral lives of persons and so better reasoners about what it is good or right to do when, as Martha Nussbaum and Hilary Putnam have suggested.” (p. 104) again Lamarque & Olsen object that moral reasoning is by no means brought by successful literary works.

According to Wellek (2018) suspects that there is something wrong with Lamarque and Olsen’s strategies, for what he calls it “divide and dismiss strategy” (p. 104). However, he believes that: “Perhaps what we get from reading literature is some mixture of subjective knowledge, improvement of our conceptual capacities, and moral insight.” (p. 104)

➤ *Quality as the literary element*

In accordance with this element, literary works are considered to be transcendental in quality, thus, Damrosch (2003, p. 135) maintains that “Great works of literature do have a transcendent quality that enables them to reach across time and space and speak directly to us today” (as cited in Fang, 2018, p. 129). To put it differently, Tindall (1955) believes that literary texts have some kind of hidden power that hypnotizes and captivates readers’ mind and body. However, Ghazalah (1987) objects to the consideration of this hidden power as a literary element, therefore, he (1987) states that “it is difficult to substantiate or describe this captivating power, regarded as the literary component.” (p.7)

➤ *Linguistic form as the literary element*

All the aforementioned elements; function, ontology, subject matter, and quality equally failed to deliver a satisfactory feature(s) of literariness. Yet, the linguistic form, perhaps, can achieve not only the task at hand but may be can answer the earlier asked question: Does literature have a language of its own? The formalists back in the 1920s claimed that the

language used in literary texts is used in a defamiliarized way, by which, it is different from the ordinary use of language. To this end, studying the language of literature reveals its literariness. In addition, there are some linguists who believe that language can be the distinguishing line between what is literary and what is not. In this respect, they believe that the unorthodox use of language in literary texts is acceptable and interpretable, therefore, Widdowson (1975) asserts that

A grammar purports to represent a speaker's knowledge of his language so that what is ungrammatical should in principle make no sense. But ungrammatical sentences in literary writing do make sense and a poem which deviates from grammatical rules as text is nevertheless interpretable as discourse. (p. 27)

Within the same linguistic framework, the proponents who claim that the use of language is what distinguishes literary texts from other types of texts have some sense in that. However, there are some others who disagree with them. Correspondingly, Wellek (2018) asserts that:

Nobody will deny that language is the medium of literature, and hence the idea to look for linguistic characteristics that set off literary language from other uses of language.... But attempts at establishing a special literary language have failed. They can succeed only with certain types of poetry.... But nobody has succeeded in showing that deviation is a necessary condition of all poetry, not to speak of all literature. (p. 29)

Additionally, Simpson (2004) gives a direct and assertive answer to the previously asked question, whereby, he asserts that “As far as most stylisticians are concerned, the short answer to the question which heads this unit is ‘no’.” (p. 98)

To this end, the above, five, mentioned elements solely attempted to distinguish literary texts from other types of texts, mainly by defining their literariness, yet they failed. According to Ghazalah (1987) even though literary texts are “symbolic, fictional, imaginative, captivating, about human life and societies, and use language in particular way.” (p. 8) and even though these elements are assembled in one literary text their gathering cannot make the distinction of literariness, simply because the same aforementioned elements are traits of non-literary texts.

With all this in mind, one may ask the unavoidable question; since none of the aforementioned elements is enclosed to literature, and similarly, literature is not confined to them; does this mean that the term literary language is non-definable? The answer would be no. Ghazalah (1987) believes that it is up to the reader to explore the properties within a literary text which he deems attracts the reader in a direct/indirect way. Respectively, Wellek (2018) considers literature as not being “... a single system of internal relations but an enormous developing, changing manifold spreading over huge stretches of time and space.” (p. 38) Indeed, literature is a complex process of activities which requires the reader’s mental and emotional deposit, alongside with his reasoning, imagination and feelings to become involved.

2. Stylistic Deviations and the Problem of Norms

The concept of deviation is based on a violation of the existence of some kind of language norms, whereby, the latter is meant to be axiomatic to every language user. However, Wales (2014) asserts that deviation is used in early stylistic works. Accordingly, she asserts that deviation is mainly used in generative grammar, this means that any piece of language which is not grammatically correct or is ill-formed is considered as deviation. Therefore, Wales (2014)

puts that it “refers to divergence in frequency from a norm, or the statistical average.” (p. 110). Within the same framework, Wales (2014) believes that the divergence is based on two levels: (i) deviation from the normal use of language (phonological, grammatical, lexical or semantic) (ii) “upon the overuse of normal rules of usage, and so be statistically unusual in the sense of over frequent” (p. 110).

From another angle, Leech (1969) believes that linguistic deviation is considered as a means for poetic making, whereby, poetry is established from linguistic deviations which is implemented by the poet in his poetry. In this respect, Jeffries & McIntyre (2010) define deviation as “another concept arising from Russian formalists, and poetry is the genre that most clearly exemplifies this feature...Deviation is essentially the occurrence of unexpected irregularity in language...may occur at any of the levels of linguistic structure...” (p. 31) Indeed, what is special about poetry is that poets hardly ever use a straightforward, clear way in saying what they mean, they deviate from the normal use of language in saying what they want to say, whereby, they give their readers an unexpected surprise and touch their inner artistic value.

As asserted earlier, stylistic analysis has its own method in analysing literary texts, in which, the levels of language (phonology, lexis, grammar, graphology, morphology...etc) are tackled. Thereby, Simpson (2004) asserts that:

These basic levels of language can be identified and teased out in the stylistic analysis of text, which in turn makes the analysis itself more organised and principled.... However, what is absolutely central to our understanding of language (and style) is that these levels are inter-connected: they interpenetrate and depend upon one another, and they represent multiple and

simultaneous linguistic operations in the planning and production of an utterance. (p. 04)

In this respect, Simpson (2004) categorized the aforementioned levels of language and their technical term in linguistics, describing each level’s domain and function. See Table 2.1:

Table 2.1: Levels of Language

Level of Language	Branch of Language Study
The sound of spoken language; the way words are pronounced.	phonology; phonetics
The patterns of written language; the shape of language on the page.	graphology
The way words are constructed; words and their constituent structures.	morphology
The way words combine with other words to form phrases and sentences.	syntax; grammar
The words we use; the vocabulary of a language.	lexical analysis; lexicology
The meaning of words and sentences.	semantics
The way words and sentences are used in everyday situations; the meaning of language in context.	pragmatics; discourse analysis

Note: Adapted from Simpson (2004, p. 5)

Sharing the same perspective, Leech (1969) and Short (1996) believe that stylistic analysis deals with linguistic deviations, therefore, Leech (1969) divides it into eight kinds: lexical, grammatical, phonological, graphological, dialectal, deviation of register, and deviation of historical period. On the other hand, Short (1996) categorizes linguistic deviation into discursual deviation, lexical deviation, grammatical deviation, morphological deviation, semantic deviation, and internal and external deviation. As it appears, Leech's and Short's categorization have some similarities, thus, below a brief description with illustration is presented to some of the aforementioned deviations.

➤ *Lexical Deviation*

Lexical deviation is concerned with the invention of new words as Leech (1969, p. 42) calls them '*nonce-formation*'. This deviation is called **Neologism** which is defined by Brown & Miller (2013) as "A word newly introduced into a language, e.g. by being borrowed or invented." (p. 306) and Wales (2014) as "Borrowed from a French term based on Gk elements, a neologism in lexicology means 'a newly invented word'." (p. 287)

In this respect, Leech (1969) and Short (1996) consider lexical deviation as one of the most commonly used technique by poets in exceeding the normal resources of language, this is done by adding affixes to words that do not require any, respectively, Wales (2014) adds that lexical deviation "reveal a wide range of morphological processes: e.g. compounding, affixation, blends and acronyms." (p. 287)

Additionally, Short (1996) points out to another kind of lexical deviation, that is to say, **functional conversion**, whereby, he defines as "The process of converting a word from one grammatical class to another..." (p. 45) what Short is referring to is that in English language it is a common thing that there are some words that have a double grammatical function, for

example, words that are both nouns and verbs such as: access, charge, drive, excuse, gaze...etc. However, in literary texts we may encounter words that have only one grammatical function converted into another grammatical function, here Short (1996) illustrates functional conversion in Hopkins's (1918) poem 'The Windhover':

... My heart in hiding

Stirred for a bird, - the achieve of, the mastery of the thing!

Cited in Short (1996, p. 46)

According to English grammar, the word achieve is a verb, however, in the example above Short (1996) explains how the poet converted the word *achieve* from a verb into a noun. He elucidates:

Here Hopkins takes the verb achieve and uses it as a noun, in spite of the fact that English already has a noun, 'achievement' derived from that verb. It is obvious that the word is a noun here because of (i) the preceding definite article, (ii) the of apparently beginning a post-modifying prepositional phrase, and (iii) the grammatical parallel with mastery. (p. 46)

➤ *Grammatical Deviation*

According to Leech (1969) this type of deviation can be drawn amid two levels; morphology and syntax, whereby the former deals with the grammar of the word and the latter deals with the grammar of how words pattern within sentences (p. 44). There are two kinds of grammatical deviations: (i) Morphological deviation is when the poet deliberately deviates from the ordinarily agreed norms of spelling, formation, construction, or application of word. In this respect, Short (1996) provides multiple examples to illustrate morphological deviation,

whereby, he points to an unorthodox addition of affixes to words that do not require any, such as in Cummings' poem '*From Spiralling Ecstatically This*':

perhapsless mystery of paradise

(as cited in Short, 1996, p. 51)

As the norms of English morphology dictate, the adverb *perhaps* does not require a suffix, however the poet intentionally added *less*. For this matter, Short (1996) comments:

Here e. e. cummings is playing on our knowledge that there is an easily extendible morphological series by which we can produce a list of words by adding the suffix '-less' to a noun (e.g. 'hopeless', 'hatless', 'sunless'). 'But perhaps' is not normally a noun but an adverb. By comparing perhapsless with the normal paradigm we can see that cummings is pointing to an apparently contradictory quality of heaven, namely that it is a mystery with no uncertainty.
(p. 51-52)

In addition to that, Short (1996) presents another type of morphological deviation where poets can play around with word boundaries as in Hopkin's '*The Windhover*':

I caught this morning morning's minion, king-

dom of daylight's dauphin, dapple-dawn-drawn Falcon ...

(Short, 1996, p. 52)

Accordingly, Short comments on the deviation in the above example that:

the word kingdom is broken over a line boundary (a graphological deviation). As a result we are invited to think harder than usual about the meaning of the two morphemes which constitute the word 'kingdom'. 'King' is obvious enough, but most twentieth-century speakers of English will not be aware that '-dom' is historically the same morpheme as 'doom', meaning 'judgement'.
(p. 52)

The second type of grammatical deviation is a syntactical one which might be a result of wrong grammar and syntactic rearrangement. At this point, Leech (1969) further illustrates the matter of ungrammaticality as a linguistic deviation like in the line 'I doesn't like him' (p. 45)

➤ *Phonological Deviation*

When it comes to phonological deviation Leech (1969) believes that most literature is in written form, therefore, there would not be much of a scope for phonological deviation. According to him it is limited since the phonological patterns are even more surface than those of syntactic surface (p. 46). In this respect, Short (1996) agrees with the fact that phonological deviation is limited, whereby, he asserts that:

Because the sound dimension of language belongs to speech...there is relatively little scope for phonological deviation....We can think of examples where words are pronounced or stressed oddly, e.g. wind pronounced as /waind/ to conform to a rhyme scheme, but in terms of poetic meaning and effect, these are cases of marginal interest. (p. 54)

➤ *Graphological Deviation*

Leech (1969) believes that the deviation at hand deals with the strangeness of the written form, whereby, it deals with irregular use of capitalization, punctuation, spelling, hyphenation, spelling, paragraphing, and italicizing. In this respect, Leech (1969) points to two American poets, namely William Carlos Williams (1883 – 1963) and Edward Estlin Cummings (1894 – 1962) whose works contain graphological deviation. Respectively, Leech (1969) explains Cummings’ graphological deviation in which he asserts that “Cummings is well known for his use of other types of orthographic deviation: discarding of capital letters and punctuation where convention calls for them, jumbling of words, eccentric use of parentheses, etc.” (p. 47) therefore, the poem below entitled r-p-o-p-h-e-s-s-a-g-r (e. e. cummings, 1923, p. 396) best illustrates Cummings’s graphological deviation

r-p-o-p-h-e-s-s-a-g-r
 who
 a)s w(e loo)k
 upnowgath
 PPEGORHRASS
 Eringint(o-
 aThe):l
 eA
 !p:
 S a
 (r
 rlvInG .gRrEaPsPhOs)
 rea(be)rran(com)gi(e)ngly
 ,grasshopper;

➤ *Semantic Deviation*

The deviation at hand, according to Leech (1969), is considered as a characteristic of poetry which is regarded as a kind of inspired nonsense, in which he asserts that ‘It is reasonable to translate ‘semantic deviation’ mentally into ‘nonsense’ or ‘absurdity’, so long as we realize that ‘sense’ is used, in this context, in strictly literal-minded way” (p. 48). Furthermore, Leech (1969) claims that semantic deviation can be divided into three type: (i) *Semantic oddity* which means semantic peculiarity or strangeness of expression, (ii) *Honest deception* which per se can be classified into three different tropes: hyperbole, litotes, and irony, (iii) *Transference of Meaning* refers to figurative language that possesses rule of transference of one meaning from another (Leech, 1969, p. 148). Furthermore, transference of meaning holds four kinds of figurative language, so to speak, *SYNECDOCHE* which occurs when a “‘part’ of a referent is named and stands for the ‘whole’; or vice versa.” (Wales, 2014, p. 411), *METAPHOR* which is defined by Simpson (2004) as “a process which employs mapping of two different conceptual domains” (p. 41) and *METONYMY* which is partially alike synecdoche, yet the only difference is that metonymy utilizes the words linked to the concept in which they are not part of it.

To recapitulate, the current chapter provided an overview and hopefully a complete comprehension of the field of stylistics as a literary analysis approach. The purpose behind this chapter is to equip the reader with the necessary literature to strengthen, enhance, and consolidate his/her their literary interpretation skills, and further, reaching an adequate interpretation for a literary piece, specifically poetry. Another purpose, is that the chapter at hand paved the way to the upcoming chapters, as the research will adopt a stylistic analysis as an attempt to deal with Cummings’ style of writing poetry and specifically his way of disfiguring language. Because of this, the next chapter will deal with concrete poetry and how

Cummings's style within this literary genre is considered one of the most mysterious poetry so far.

CHAPTER THREE: SCOPE AND METHODOLOGY

Many well-known poets have challenged and changed people's way of perceiving spirituality, nature, love, life, death, time and so forth. Among those poets, one can cite Edgar Allen Poe, William Shakespeare, Emily Dickinson, Robert Frost, Walt Whitman, William Blake and many others. However, few of these poets took poetry to the next level as Guillaume Apollinaire (1880 – 1918) and Estlin Edward Cummings (1894 – 1962) known as E. E. Cummings did. These two poets merged their poetic style with the art of painting and gave their poetry a new form where they applied their own rules on language and shape of poetry. In this respect, the current chapter is divided into two parts: the first part deals the scope of the study where the researcher explains how poets can become painters and how painters can become poets. Then the researcher moves to elucidate the aforementioned poets' style in relation to visual poetry by dealing with their unique and unorthodox way of writing. The second part is devoted to the methodology of our enquiry where the author explains the methodology that was conducted. After that, he presents Apollinaire's and Cummings' selected poems. In addition to that, readers' reaction towards the selected poems are dealt with to show how difficulty of reading the poems.

I. SCOPE OF THE STUDY**1. Poetry in Painting and Painting in Poetry**

In its eminent nature poetry is meant to be heard and painting is a visual art. Merging poetry with painting results in what is called visual poetry, also known as concrete poetry. Throughout the history of literature, there are many famous poets who are also painters, so to speak, William Blake (1757 – 1827), Victor Hugo (1802 – 1885), Charles Baudelaire (1821-1867), Tennessee

Williams (1911-1983), Gunter Grass (1927-2015) and so forth. However, the painting elements in the poems of the aforementioned poets are supplemented by the imagination of the readers, while in Apollinaire's and Cummings' poems the painting is directly presented in front of the readers and tends to resemble to pictographic poetic forms/shapes. According to Garcia (2020):

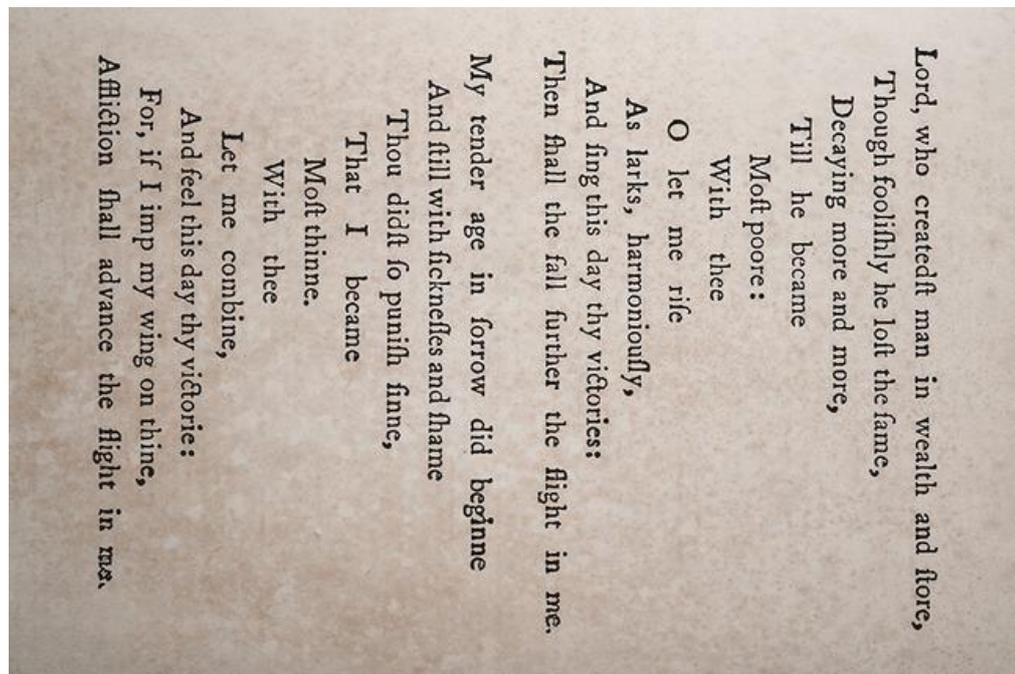
The pictograph is thus taken as synonymous with visual style, a manner of imaging, such as it is described in the writings of image theorists W. J. T. Mitchell (27-31) and Hans Belting (31-33) ... One of the principle characteristics of pictographic use is its close association with oral performance... in addition to the experimental allegorical ethnography... This close association between icon and oral performance implies that pictographs have a distinct poetic system. (p. 10)

As indicated in the above quotation, for Garcia (2020), the term pictograph poetry can be referred to as visual poetry the history of which goes back as early as the 4th century in ancient Greece. In the 17th century, the British poet G. Herbert (1593-1633) wrote two visual poems entitled '*The Altar*' (1633) and '*Easter Wings*' (1633) which are presented in Figure 3.1

Figure 3.1: The Poem ‘The Altar’ by George Herbert (1633)

A broken A L T A R, Lord, thy servant reares;
 Made of a heart, and cemented with tears:
 Whose parts are as thy hand did frame;
 No workmans tool hath touch'd the same.
 A H E A R T alone
 Is such a stone,
 As nothing but
 Thy pow'r doth cut.
 Wherefore each part
 Of my hard heart
 Meets in this frame,
 To praise thy Name:
 That, if I chance to hold my peace,
 These stones to praise thee may not cease.
 O, let thy blessed S A C R I F I C E be mine,
 And sanctifie this A L T A R to be thine.

Note: Reprinted from Malcolmson (2004, p.62)

Figure 3.2: The Original Orientation and Shape of the Poem ‘Easter Wings’

Note: Reprinted from Comerford (2012). Retrieved August 29th, 2019, from

<https://www.patrickcomerford.com/2012/04/poems-for-easer-2-easter-wings-by.html?m=1>

(Originally photographed 1970, 01st January)

Many poets have used visual poetry before Apollinaire and Cummings, yet the early creation of pictorial poem (visual poems) is not so much of a fusion between poetry and painting, it is more of an image game of words. Apollinaire and Cummings both created a large number of pictorial poems in the early 20th century, Apollinaire had launched ‘*Calligramme*’ (1918) and Cummings is also famous for his unorthodox/unreadable poems about falling leaves and Grasshopper. Consequently, the next sections shed light on the key concepts that resulted from the fusion of poetry and painting, namely Calligrams, visual poetry, concrete poetry, and sound poetry.

A. Calligrams

Calligrams are a form of poetry that was first introduced by Apollinaire in 1918. According to Rosario (2011) Apollinaire thought of a different name for what we now know as the *Calligrams*. In this respect, Rosario (2011) asserts that “at the beginning he thought of calling them ‘*idéogrammes lyriques*’. These poems, in fact, allow to free from the constraints of the linear reading thank to the instantaneous perception of the image.” (p. 48). However, Poggi (1992) believes otherwise as he claims that “In his calligrammes, Apollinaire sought to achieve a new synthetic form of poetry, addressed to the ear and to the eye. The original title for *Calligrammes* had been *Moi aussi je suis peintre*.” (p. 198)

In his correspondence with André Billy, Apollinaire himself defines the ‘*Calligrammes*’ as follows:

The Calligrammes are an idealisation of free verse poetry and typographical precision in an era when typography is reaching a brilliant end to its career, at the dawn of the new means of reproduction that are the cinema and the phonograph.

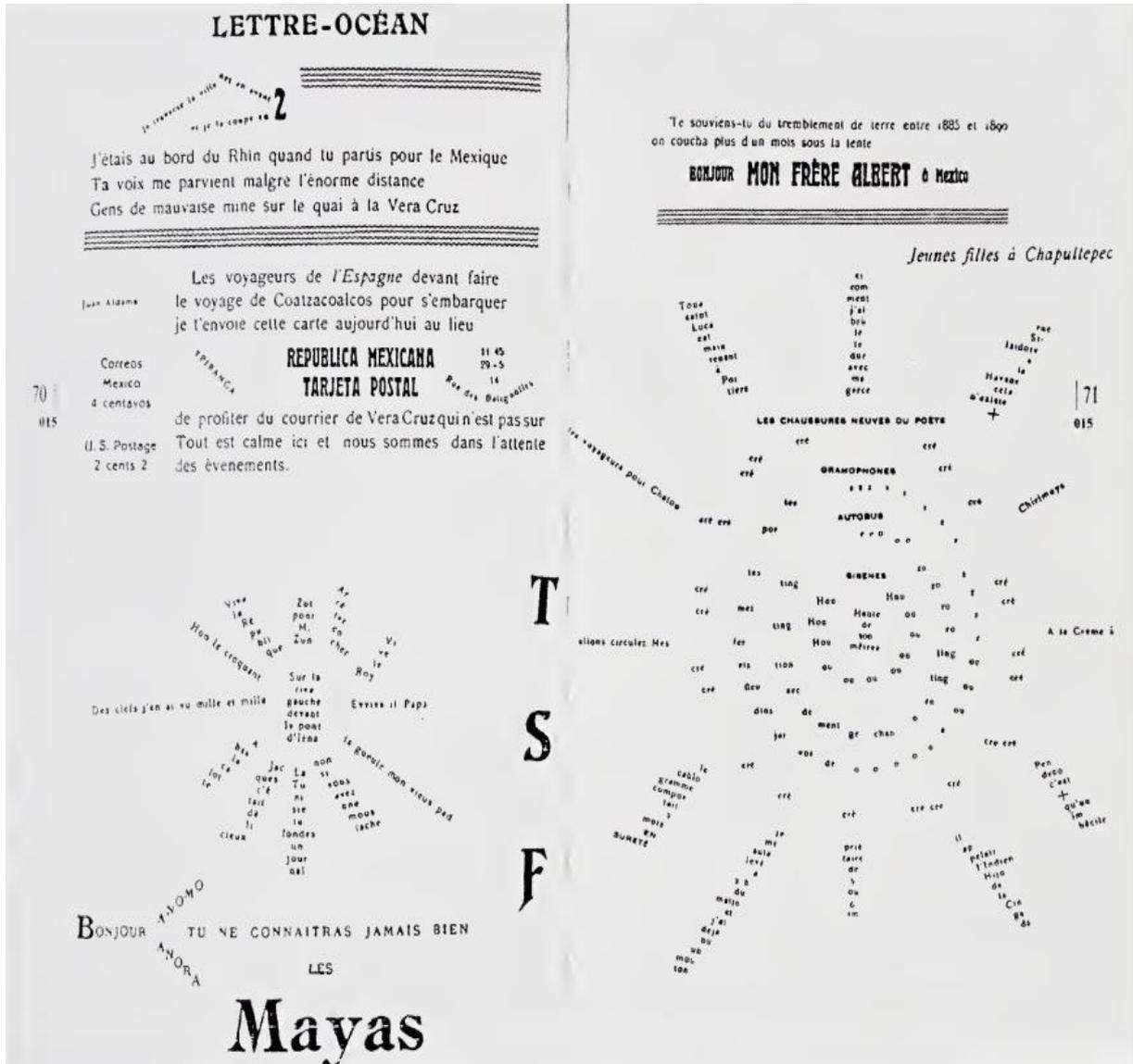
(as cited in Coughlan, 2018)

Contrariwise, Cuddon & Preston (2006) define the Calligramme as:

A design using the letters of a word; more particularly a poem written and printed in a specific shape. Guillaume Apollinaire (1880-1918) published *Calligrammes* (1918), which contains the well-known *Il pleut*, printed with letters trickling down the page like 'tears'. (p. 106)

Indeed, Apollinaire is considered as the forefather of *Surrealism*; which is 'an artistic attempt to bridge together reality and imagination. Surrealists seek to overcome the contradictions of the conscious and unconscious minds by creating unreal or bizarre stories full of juxtapositions.' (What is Surrealism in Literature? - Definition, Characteristics & Examples, 2015) and his '*Calligrammes*' (1918) is a kind of poetry that is mixed with the art of painting and is considered as a contribution to concrete/visual poetry. Two of his most known poems in his *Calligrammes*, among others which will be dealt with in the next sections, are "*Lettre-Ocean*" (June 1914) which translates to (Ocean-Letter) and '*Il Pluet*' (December, 1916) which translates to (It's raining). The two poems are presented below.

Figure 3.3: Guillaume Apollinaire (1914) ‘Lettre-Océan’ from *Les Soirées de Paris*



Note: Reprinted from Poggi (1992, p. 197)

Figure 3.4: Guillaume Apollinaire (July 1914) '11 Pleut'



Note: Reprinted from Poggi (1992, p. 197)

What is interesting about Apollinaire's Calligrams is that it links between the ear and the eye, meaning, it requires two human senses, so to speak, hearing (through reading) and visualizing through looking. Interestingly, Lessing (1766) clearly demonstrated the difference between poetry and painting in his essay '*Laocoon*' (1766), where he believed that the frontier between the two must not be indistinct. Accordingly, Lessing (1766/2005) asserts that:

SPENCE has the strangest notions of the resemblance between painting and poetry. He believes the two arts to have been so closely connected among the ancients that they always went hand in hand, the poet never losing sight of the painter, nor the painter of the poet. (p. VIII)

It is an undeniable fact that there is no separation between poetry and painting when it comes to the calligrams or visual poetry, however, according to Michele Foucault (1973), Roger Shattuck (1984) and Pénélope Sack-Galey (1988), this may cause a hindrance to readers as they cannot read the text of the poem and visualize the image it resembles to at the same time. For this reason, Foucault (1973/1982) asserts:

For the text to shape itself, for all its juxtaposed signs to form a dove, a flower, or a rainstorm, the gaze must refrain from any possible reading. Letters must remain points, sentences lines, paragraphs surfaces or masses-wings, stalks, or petals. (p. 24)

Similarly, in order to read the poem as a text, the calligram requires from readers to pay "attention to the local level of detail at the expense of global spatial layout, so that when we read, our awareness of the poem's shape dissolves." (Shingler, 2011, p. 5) In this matter, Foucault (1973/1982) asserts that:

As soon as he begins to read, in fact, shape dissipates. All around the recognized word and the comprehended sentence, the other graphisms take flight, carrying with them the visible plenitude of shape and leaving only the linear, successive unfurling of meaning. (p. 24)

What Foucault (1973/1982) is trying to indicate is that when dealing with a calligram, the visual-verbal simultaneity fails, that is to say, the calligram does not say and represent concomitantly. Consequently, Foucault (1973/1982) concludes that:

For whoever sees it, the calligram does not say, cannot yet say:
This is a flower, this is a bird. It is still too much trapped within shape, too much subject to representation by resemblance, to formulate such a proposition. And when we read it, the deciphered sentence (“this is a dove,” “this is a rainstorm”) is not a bird, is no longer a shower. By ruse or impotence, small matter-the calligram never speaks and represents at the same moment. The very thing that is both seen and read is hushed in the vision, hidden in the reading. (p. 24-25)

Within the same perspective, on one hand, Shattuck (1984) shares Foucault’s thoughts on the calligram as he has his own saying on Apollinaire’s poem *‘Lettre-Océan’* (1914) where he believes that “Our global vision first grasps the Gestalt, the shape of the whole. But this immediate perception has to be completed and corrected by scanning.” (as cited in Shingler, 2011, p. 6) On the other hand, Sack-Galey (1988) supports previous critics on the calligram by adding that “le calligramme n’est qu’exceptionnellement un Gestalt inclusif (comme “1915”,

par exemple). Il est impossible d'apprécier simultanément tous ses éléments dans une lecture optique." (p. 59) which translate to "The calligram is only exceptionally an inclusive Gestalt (such as "1915"). It is impossible to appreciate all of its elements simultaneously in an optical reading."

B. Visual Poetry

Visual poetry is considered as an intermedium as it joins between poetry and other human activities such as painting. It destroys the borders between art and text as it makes the poet and a painter one person. (Sokar, 2016) Hence, his major concern is not the text only, but the complete literary work that is made of an image and a text. Visual poetry can be defined as poetry which is meant to be seen, and thus, Bohn (2001) asserts that "Although poetry is a linguistic construct, the way in which it communicates is influenced by spatial relations as well. In the final analysis, every poem, even a Shakespearean sonnet or an ode by Ronsard, possesses a visual dimension." (p. 15)

In order to write a visual poem, the poet can create a peculiar form of poetry by using different techniques such as text arrangement/rearrangement. In this regard Bohn (2011) explains that:

What makes visual poetry so unique, after all, is the way in which the text and the design interact with each other. Reevaluating each one in the light of the other frequently reveals new connections between them. At the very least, it allows the reader to formulate a comprehensive interpretation. (p. 17)

As asserted before, visual poetry goes all the way back to ancient civilizations, viz the Greek and the Roman civilizations. Visual poetry is "known to the Greeks as *technopaigneia*

and to the Romans as *carmina figurata*.” (Bohn, 2011, p. 13) Respectively, Shaffer (1982) defines Technopaignea as “poems written in lines of varying length which follow the outline of an object.” (p. 118) And *carmina figurata* as “the use of pictorial additions, after the manner of Hrabanus Maurus.” (p. 120-121).

As assert before, when dealing with the calligrams, Apollinaire was not the first to create visual poems. Historical records show that some ancient civilizations adopted this kind of poetry; naming for example the Arabic, the Chinese, the Japanese and the Western civilization is no exception. Interestingly, the Western tradition is not as rich as the aforementioned civilization when it comes to visual poetry, but it has its own contribution to the development of visual poetry. In this sense, Rosario (2011) asserts that:

even if the practice of this type of poetry in the Western tradition is not as rich in breadth and depth as, for instance, the Arabic, the Chinese or Japanese cultures, there are very interesting examples of contamination between the written word and image through the centuries. (p.26)

Consequently, Rosario (2011) put the evolution of visual poetry through different historical stages starting from 325 BCE till the 17th century, however, only some of them are dealt with so that one can have an overall understanding on the historical background of this type of poetry. Indeed, Rosario (2011) believes that the first visual poems can take us all the way back to Simmias of Rhodes (a Greek poet and scholar) era where he wrote three poems entitled ‘*The hatchet*’, ‘*The wings*’, and ‘*The egg*’ which are considered as the first known calligrams (Rosario, 2011, p. 26).

Figure 3.5: Simmias of Rhodes, *The Egg* (325 BCE ca.)

Κατίλας
 τῆ τοδ' ἀτριον νέον
 πρόφρων δε θυμῷ δεξο' δη γὰρ ἀγιάς
 τὸ μὲν θεῶν ἐριβόας Ἑρμῆς ἐκειξε κάρυξ
 ἀναγε δ' ἐκ μέτρου μονοβάμιος μέγαν πάροιβ' ἀέξειν
 θαῶς δ' ὑπερθεν ὠκυλέχριον φέρων νεῦμα ποδῶν σποράδων πίφασκεν
 θαοῖς ἴσ' αἰόλαις νεβροῖς κῶλ' ἀλλάσσων, ὄρειπόδων ἐλάφων τέκεσσι·
 πᾶσαι κραιπνοῖς ὑπὲρ ἀκρων ἔμεναι ποσι λόφων κατ' ἀρθμίας ἴχνος τιθῆνας·
 καὶ τις ἀμύθημος ἀμφιπαλτον αἴψ' αὐδάν θηρ ἐν κόλπῳ δεζόμενος θαλαμῶν μυχαϊτάτῳ
 κᾶτ' ὠκα βοᾶς ἀκοῖαν μεθέπων ὃ γ' ἄφαρ λάσιον νιφοβόλων ἀν' ὄρεων ἐσσυται ἀγκος·
 ταῖς δὴ δαιμων κλυτὸς ἴσα θαοῖσι ποσίν δονέων ἄμα πολὺπλοκα μεθίει μέτρα μολπαῖς.
 ριμφα πετρόκοτον ἐκλιπῶν ὄρουσ' εἰκῶν ματρός πλαγκτὸν μαϊόμενος βαλιάς ἐλεῖν τέκος·
 βλαχαῖ δ' αἰῶν πολυβότων ἀν' ὄρεων νομὸν ἔβαν ταυνοσφίρων τ' ἐς ἄντρα Νυμφῶν·
 ταῖ δ' ἀμβρότῳ πόθῳ φίλας ματρός ρῶοντ' αἴψα μεθ' ἡμερόντα μαζόν,
 ἴχνει θεῶν ταν πακαίολον Πτερίδων μονόδουπον αὐδάν,
 ἀριθμὸν εἰς ἀκραν δεκάδ' ἴχνιων, κοσμον νέμοντα ρυθμῶν,
 φύλ' ἐς βροτῶν ὑπὸ φίλας ἐλῶν πετροῖσι ματρός,
 λιγεία μιν καμ' ἴφι ματρός ὠδῖς·
 Δωρίας ἀήδονος·
 ματέρος

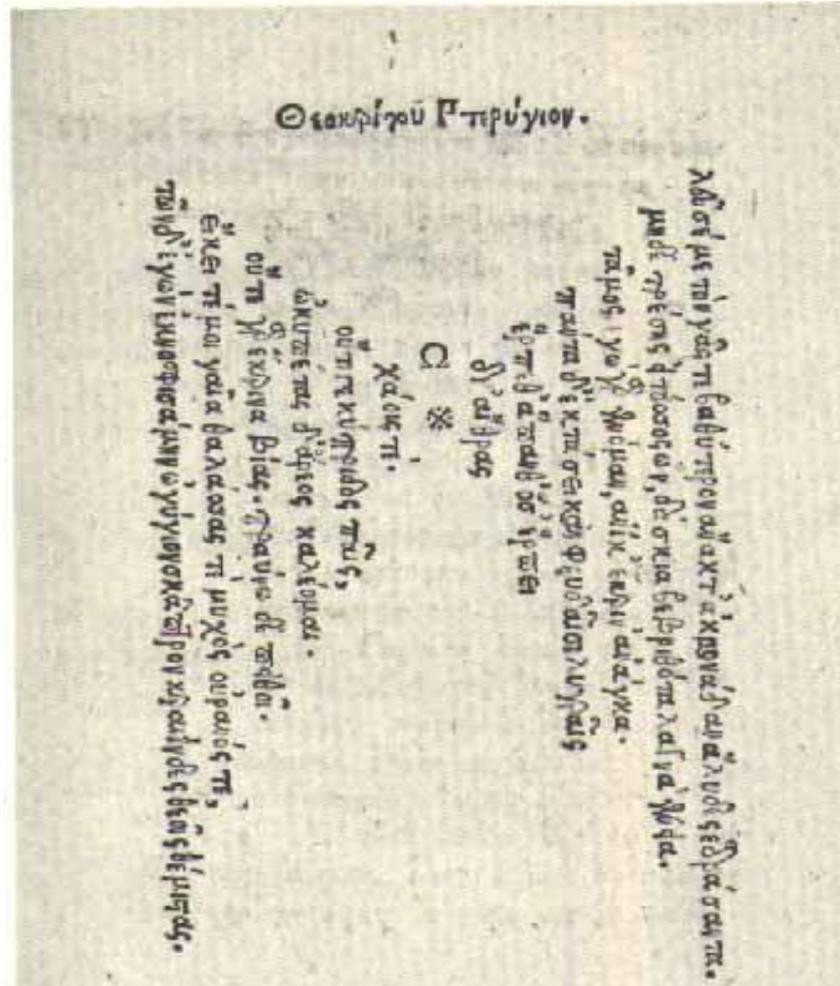
Note: Reprinted from Rosario (2011, p. 27)

Figure 3.6: Simmias of Rhodes, *Hacha*



Note: Reprinted from Elleström, et. al. (2013, p. 126)

Figure 3.7: Simias Rhodius, “Wings of Eros in Theocritus / Eidullia Theokritou Triakonta” ca. 325 B.C.



Note: Reprinted from Mode. (2013, February 8). *Ancient Poetry: Simias rhodius*. Retrieved September 7, 2020, from [Http://Text-Mode.Org/](http://Text-Mode.Org/). <http://text-mode.org/?p=5212>

Another visual poem, or as Rosario (2011) calls it ‘*Figure-formed writing*’, was written by Hrabanus Maurus (845) and entitled ‘*De adoratione crucis ab opifice / De Laudibus Sanctae Crucis*’. This poem presents a monk praying in front of a cross. This kind of poem makes reading and looking at the same instant possible (Rosario, 2011). Consider the Figure below:

A decorative curvilinear narrow strip where the eye tends to become lost in the intricacies. The letters in this space do not want to be read, they want to be apprehended by the eye via their denotational, not their connotational force. (p. 30)

New technologies at that time gave the manuscript a privilege to become illuminated and decorated. This kind of poetry (see Figure 3.9) connects between writing and decoration, thus Castanyer (2004) mentions that “there may be a physical nexus that connects the two, or there may be a relation of sense and significance between them.” (Creation and experimentation, para. 8) where the first case deals with the written message that the poet puts and the second is concerned with the illustrations that convoy the text.

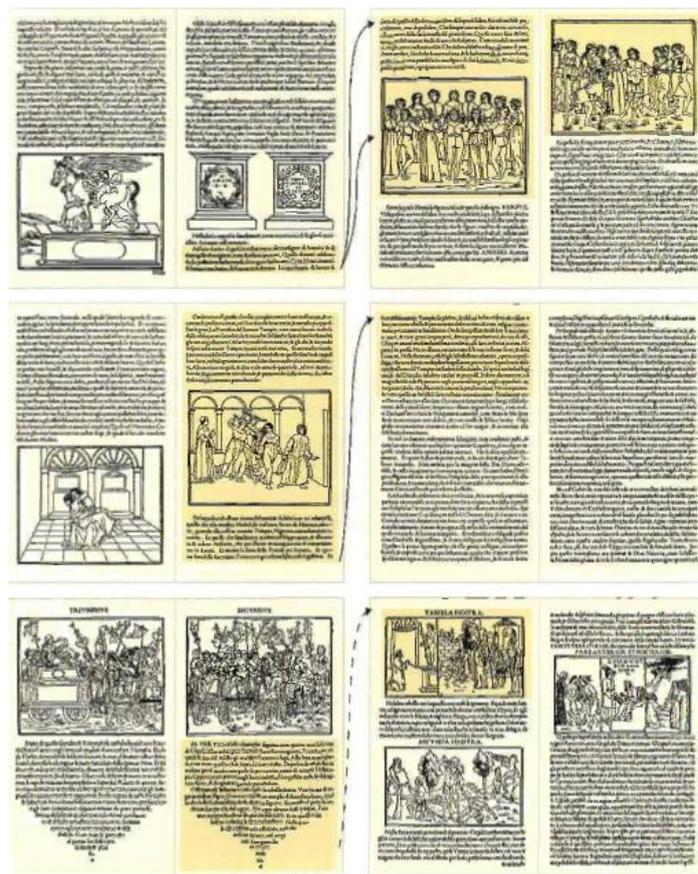
Figure 3.9: The Interlace – Particular of a Medieval Illuminated Manuscript



Note: Reprinted from Rosario (2011, p. 29)

Around the 15th century, visual poetry witnessed minor authors who combined poetry with visual images; naming for example Iacobus Nicolae’s ‘*Liber De Disticcione Metrorum*’ and Janus Pannonuis’ ‘*Litera Pythagora*’ (Rosario, 2011). Another poet mixed between poetry and visual image; that is to say, Francesco Colonna’s (1499) ‘*Hypnerotomachia Poliphili*’. What distinguished Colonna from other poets at that time is that his poetry allows readers to go forth and back from textual description to its commensurate visual image (see Figure 3.10), as *Hypnerotomachia* combined the relevant text with the relevant image (Tuft, 2006).

Figure 3. 10: Francesco Colonna, *Hypnerotomachia Poliphili* (Venice, 1499)



Note: Reprinted from Tufte (2006, p. 91)

In the 17th and the 18th century, many poets took interest in writing visual poems, Rosario (2011) lists some of them as follows:

The Slovak Albert Szenczi Molnár, the Germans Johann Hellwig, Georg Philippe Harsdörffer, Johann Klaj and Henryk Firley (1624), the Italian Giovanni Pierio Valeriano da Bolzano and even a woman, the Austrian Catherina Regina von Greiffenberg were still composing focusing on the visual aspect of words. (p. 37)

All the aforementioned poets by Rosario relied on synthesising media, poetry and painting all together in one literary piece which turns into a pictorial poem. Within the same context, Descartes (1629) believed in a universal writing based on images and not phonemes (Rosario, 2011). Descartes (1629/1991) explained his dream in a correspondence with father Mersenne on 20th November, 1629 where he asserts:

So the only possible benefit that I see from his invention would be in the case of the written word. Suppose he had a big dictionary printed of all the languages in which he wanted to make himself understood, and put for each primitive word a symbol corresponding to the meaning and not to the syllables, a single symbol, for instance, for *aimer*, *amare* and $\phi\lambda\epsilon\nu$: then those who had the dictionary and knew his grammar could translate what was written into their own language by looking up each symbol in turn. (p. 12)

Descartes' dream of creating a universal writing rather than a universal language seems to have influenced some poets who eventually based their writing accordingly, such as Leibniz's '*Characteristica*' (Rosario, 2011).

C. Concrete Poetry

Before delving into the murky waters of defining the term concrete poetry, we shall first take a bird's eye into the terminology of the word '*concrete*'. The latter originated from the Latin language as Romani (2017) puts it:

[Concrete poetry is] Derived from the Latin *concretum*, past participle of *concrecere* (harden), this word seems to stand, in the whole Western world, as an efficient articulation for pointing out something present, concretely perceivable, visible and touchable, that can, for its own "hardness", hit and affect the human body. (p. 18)

According to Romani (2017) the word concrete took a quite journey jumping from its natural state to art then to poetry. In this respect, the word concrete in art, Romani (2017) states that it:

was first taken by pictorial and musical vanguards, for referring to the elaboration of the work of art on the basis of some unprocessed or "rough" material, taken in its natural state, without the softening mediation of harmonic and roundish forms. (p. 19)

On the other hand, the word *concrete* in poetry differs from the term that was used in art. Additionally, in an interview with Augusto de Campos which was conducted by Romani (2017), Augusto stated that:

Before Schaeffer used the word "concrete" for his music, we [Noigandres Group] were already connected with the Paulista

painters and sculptors of Ruptura group, whom we knew in 1952 and who called themselves “concrete” or “concretists”, from the expression “concrete” introduced by Van Doesburg and replaced in circulation by Max Bill, in the Forties, with the specific goal of distinguishing it from “abstract” art.

(as cited in Romani, 2017, p. 238)

With that being dealt with, now we move to clarify the difference between concrete poetry and visual poetry. The differentiation between the two leads to different perspectives as Rosario (2011) puts it:

There are still some debates regarding the distinction between concrete poetry and visual poetry, in particular there are three dominant views regarding the issues (*sic*) One view is that visual poetry is synonymous with concrete poetry. A second view is that visual poetry is a type (or sub-category) of concrete poetry. And the last view...is that visual poetry has evolved into a visual form distinct from concrete poetry. (p. 63)

Within the framework of the research at hand, the term concrete poetry is used as a distinct kind of poetry from visual poetry. In this regard, Foucault (1973/1982) asserts that visual poetry “lodges statements in the space of a shape, and makes the text say what the drawing represents.” (p. 21) whereas Rosario (2011) believes that concrete poetry depends on typographical arrangement as he mentions that “In concrete poetry the typographical arrangement of words is as important in assigning the intended effect as the conventional elements of the poem, such as meaning of words, rhythm, rhyme, and so on.” (p. 63).

When it comes to the definition of the term concrete poetry, Williams (1967) and Solt (1968) believe that defining the term is not an easy task. Respectively, Williams (1967) asserts that “Concrete poetry . . . is what the poets in this anthology make” (p. v) and Solt (1968) writes “There are now so many kinds of experimental poetry being labeled "concrete" that it is difficult to say what the word means.” (p. 1) Consequently, Kostelanetz (1993) brings a useful starting point for comprehending concrete poetry, whereby, he says that:

Concrete Poetry aims to reduce language to its concrete essentials, free not only of semantic but of syntactical necessities. It is often confused with SOUND POETRY and VISUAL POETRY...but is really something else. The true Concrete Poem is simply letters or disconnected words scattered abstractly across the page or a succession of aurally nonrepresentational (and linguistically incomprehensible) sounds. (p.45)

Even though the abovementioned definition seems to be a more elaborate definition than Williams’ (1967), Kostelanetz (1993) failed to capture concrete poetry’s nuanced manifestations as not all concrete poems use disconnected letters/word. In this regard, Schmaltz (2018) adds that:

Not all concrete poetry, for example, is comprised of disconnected or scattered letters; some of it appears quite connected. Likewise, a concrete poem is not necessarily reductive; concrete poetry can sprawl across many pages to be combined into baroque, multi-panel works. (p. 61)

For a better understanding of what is concrete poetry, Weaver (1964) divides concrete poetry into three types: visual, phonetic and kinetic as he puts that “the origins of the Concrete movement in poetry are briefly traced, with early manifestoes included as appendices. Three perceptual approaches, classified as optic, kinetic, and phonetic, are distinguished by means of twenty-one illustrations.” (p. 293) Whereby, he defines these three categories/classifications as follow: “the *optic* or visual poet offers the poem as a constellation in space; the *kinetic* poet offers it as a visual succession; the *phonetic* poet offers it as an auditory succession.” (Weaver, 1964, p. 294)

Furthermore, Weaver (1964) underscores that individual poems within the aforementioned classifications (optic, kinetic and phonetic) are related to two distinctive traditions in art, so to speak, the constructivist or the expressionist. The latter are defined by Solt (1968) as follows:

The constructivist poem results from an arrangement of materials according to a scheme or system set up by the poet which must be adhered to on its own terms (permutational poems). In the expressionist poem the poet arranges his material according to an intuitive structure. (p. 1)

In this vein, Solt (1968) disagrees with Weaver (1964) by claiming that weaver’s classification of concrete poetry is only clarifying when it is applied generally. However, when we deal with a particular poem, we find that the poem can be visual, phonetic, constructivist and expressionist. Thus, she claims that “Concrete poems can only be classified in terms of their predominating characteristics.” (Solt, 1968, p. 1)

2. Visual Poetry between Apollinaire and Cummings

There are many similarities between Guillaume Apollinaire (1880 – 1918) and E.E. Cummings (1894 – 1962) as both of them are considered among the pioneers of visual poetry. Indeed, Apollinaire is considered as the founding father of the calligrams and Cummings is also well-known for his unorthodox works such as poems about grasshopper and falling leaves. The current section highlights the common points that the two poets have, and how their contribution, in literature in general and in writing poetry in particular, not only changed the world, but took poetry to the next level by using a piece of paper and a typewriter. Respectively, the following subsections elucidate the most common features and relationships both poets had and how those features influenced their way of dealing with poetry.

During the dawn of the 20th century, Apollinaire played multiple important roles as a critic and the leader of the French Avant-garde art movement. However, as a poet he was influenced by symbolism. In 1899, Apollinaire travelled to Paris where he met with Picasso, Jari and other literary circles and constructed solid relationships. During his stay in Paris, Apollinaire promoted the cubist movement and after the emergence of the Futurist movement in Italy in 1909 he became its French leader. As asserted earlier, Apollinaire's contribution to literary work is undeniable; he wanted to implement the spirit of Avant-garde art into his literary writings/creations. Thus, he published a book entitled '*Les Peintres Cubistes*' (The Cubist Painters) in 1913 where he talked about the interpenetrating relationship between painting and poetry. (Zhang, 2019)

Similarly, to Apollinaire's experience in France, Cummings also lived in Paris where he met with Picasso. Later, Cummings came into contact with many Avant-garde art schools where he admired cubist and modernist painters such as Cezanne. Cummings was not just a poet, but also a painter where he held so many solo exhibitions (see appendix ...). While

studying in Harvard University, Cummings came into contact with different kinds of paintings such as impressionism and fauvism, and in 1913 he visited the Armory Show art exhibition held in Boston where he was fascinated with Picasso's work as Cohen (n.d) puts it: "knocked out by the Picassos, (*sic*)" (as cited in Shire, 2016). As a poet, in his senior semester paper, Cummings mentioned that art occurs in painting, music, and of course it will certainly exist in poetry. (Zhang, 2019) This manifesto also plays a fundamental role in Cummings' painting and poetry practice in the future. Under the influence of Avant-garde trends such as Cubism and Futurism, Cummings began to write poetry in an innovative way, and the influence of painting can be seen in his poems.

The close contact between Cummings and Apollinaire and the Avant-garde artists undoubtedly influenced their views on literary writings. As one of the Cubist manifestos, Apollinaire's position is clear, that is, to defend anything that is modern and "new", eager to subvert all outdated concepts. (Zhang, 2019) Similarly, Cummings is also tired of the 'traditional' literature and art that Harvard students generally dealt with. He uses lowercase names (E. E. Cummings) and lowercase "I" (i) to differentiate himself and his poetry from the orthodox way of writing poetry.

Regarding the literary form compatible with Avant-garde art, Apollinaire et al. (2010) emphasized that:

It is the social function of the great poets and the great painters to renew unceasingly the appearance which nature assumes in the eyes of men. Without the poets, without the artists, men would quickly tire of the monotony of natural phenomena. (p. 17)

Correspondingly, Cummings implemented a similar attitude with creative practice. His good friend W.C. Williams once pertinently commented:

He does it, not to be 'popular,' God knows, nor to sell anything, but to lay bare the actual experience ... He does it to reveal, to disclose, to free a man from habit. Habit is our continual enemy as artists and as men (as cited in Cheever, 2015, p. 150).

3. E.E. Cummings' Poetic Style in Relation to Visual Poetry

Cummings who may be considered as one of the revolutionary modernizers in the world of poetry in terms of language has an interest in literary language and libertine orientation toward the orthodox norms of poetry. This could be resulted due to the influence of the Greek language and literature on Cummings' progression as a poet. Indeed, According to Reef (2006) Cummings joined Cambridge where he received courses that emphasized ancient and foreign languages such as Latin. Accordingly, Kennedy (1980) also elaborates that the massive influence of Cummings' classical languages studies was on his poetry:

The language study made him intensely aware of the range and possibility of the English language; it made him conscious of the literal meanings, of etymological roots, and of cognates and related words in ancient and foreign languages. It stretched his vocabulary and embedded a sense of syntax in his very bones.... He came to understand linguistic theory in a practical way.

(p. 17)

According to Kennedy (1980) there are three different poetic styles that Cummings possesses in his poetry. In this case, Stickney (1985) asserts that “Richard S. Kennedy indicates that three distinct poetic styles may be discerned in Cummings's poetry. These styles often merge together so that one poem may be considered a blending of more than one style.” (p. 26) These styles are often combined together in one poem in the consideration that this poem may be a melting pot of more than one style.

➤ *Lyric and mythic style:*

What characterizes this kind of style is the idealized and mythic approach to life. In addition to that, the language used in this style is simple and clear with casual and familiar phrasing and grammar. Sometimes it happens that the reader may find a change in spacing or syntax, yet such an alteration is intended to improve the significance of the tranquil atmosphere and imagery. Cummings' much stable, continuing, and appreciated works are the ones written in this kind of style.

➤ *Satiric style:*

In this kind of style, Cummings expresses a rejection towards life and/or society while he worships sex which is considered as a dirty but at the same time an essential physical endeavour. Cummings' poems that possess this kind of style have drunks, prostitutes, policeman, generals and national leaders as their characters. By using this kind of style, Cummings often uses a well-established verse form more likely as the ballad or sonnet. This use of verses is for the sake of creating an ironic contrast between the subject and the form of the poem.

➤ *Modernist style:*

Kennedy (1980) relates this kind of style to the term *Hephaestian*. By Hephaestian, he means the “bending, breaking, twisting, mending, reshaping the functions of the mythic

craftsman.” (Stickney, 1985, p. 27) In other words, Cummings’ ways of bending and reshaping language are comparable in certain respects to the Hephaestus analogue. This made an impact on the modern poetic language as Cummings tried to embody the spirit of spatial arts in his way of writing. Indeed, Cummings’ attempt to implement artistic features in his technique such as elliptical statements, distorted syntax and typography, and surprise and shock in the images is a characteristic of the Hephaestian style.

In contrast to other poets’ view of the poet’s function, Cummings has a vision of his own. Thus, Cummings (1892) mentions in his unpublished manuscript ‘*Miscellaneous Notes [for a poetic theory]*’

The day of the spoken lyric is past. The poem which has at last taken its place does not sing itself; it builds itself, three dimensionally, gradually, subtly, in the consciousness of the experiencer. (as cited in Kennedy, 1980, p. 128)

Cummings’ daring poetic innovation as a craftsman poet received mixed reactions from readers as well as critics. In this respect Kennedy (1980) speaks about the factors behind the pros and cons of Cummings’ style as he describes the Hephaestian style during Cummings’ career in which linguistic distortions are automatic, typical or jarring rather than elegant and skilful. However, when this style is mastered, the feedbacks are of great complexity, displaying considerable aesthetic value and depth (Stickney, 1985). The reading and appreciation of Cummings’ poetry lies on the mixture and the quality of his verses. Cummings has multiple styles in his writing that, on one hand, indicate the complexity of his personality and creative vision. On the other, Cummings’ failure to merge the three styles (lyric and mythic, satiric, and modernist) may show a certain lack of discipline and maturity. Therefore, the appreciation of

Cummings' poetry varies from one poem to another depending on the success or the failure of his style.

A. Investigating Cummings' Poetic Style

What makes Cummings' poetry one of its kind is his deviation from the conventional norms of traditional poetic style. In the field of literature as well as art; this deviation is called '*foregrounding*'. The latter, was coined by the theorist Mukarovsky (1932), and can occur in everyday language such as the spoken form or the written one. However, at this point the occurrence of foregrounding is at random and it has no systematic design (as cited in Garvin, 1964). Notwithstanding, when it comes to the fields of literature and art, foregrounding is intentional and hierarchical and is followed by a systematic design to reach a linguistic or artistic deviation. Leech (1968) confirms: "Such deviations from linguistic or other socially accepted norms are labelled foregrounding, which invokes the analogy of a Figure seen against a background." (p. 57)

As a matter of fact, literature and art share similarities with each other. Therefore, foregrounding can be found in both fields. This proves that Cummings did not deviate from the conventional norms in literary work only, but also in his paintings. The uniqueness of a painter's masterpiece lies not in his ordinary reproduction of a certain landscape, still life, or a Figure, but in violating the rules of a regular painting, particularly in abstract paintings.

Foregrounding is a term coined in contrast to the term automatization, that is to say '*deautomatization of an act*'. In this respect, Mukarovsky (1932) asserts that:

Foregrounding is the opposite of automatization, that is, the deautomatization of an act; the more an act is automatized, the less it is consciously executed; the more it is foregrounded, the

more completely conscious does it become. [. . .] In poetic language foregrounding achieves maximum intensity to the extent of pushing communication into the background as the objective of expression and of being used for its own sake; it is not used in the services of communication, but in order to place in the foreground the act of expression, the act of speech itself.

(cited in Nöth, 1995, p. 356)

In other words, what Mukarovsky means by deautomatization is making the familiar unfamiliar. This is vividly seen in Cummings works (literary and painting). The purpose behind defamiliarization is to shake the schemata of the readers by challenging their imagination and making forms difficult to read. Thanks to foregrounding, Cummings managed to disturb the schemata of his readers as he pushed them to get involved with heart and soul in his world of poetry.

B. Cummings' Linguistic Deviations

The appreciation of Cummings' poetry is greatly associated with the analysis of foregrounding and deviation. The latter are complementary to each other since deviation is the most significant means of achieving foregrounding, whereas foregrounding is the linguistic deviation and the foregrounded text is the ordinary text that has been deviated. As mentioned in the previous chapter, there are many stylistic deviations, yet we will discuss only three types of linguistic deviation, namely graphological, lexical and semantic deviation. The following sections shed light on these particular deviations because they prevail in Cummings' poetry.

1) *Graphological Deviation*

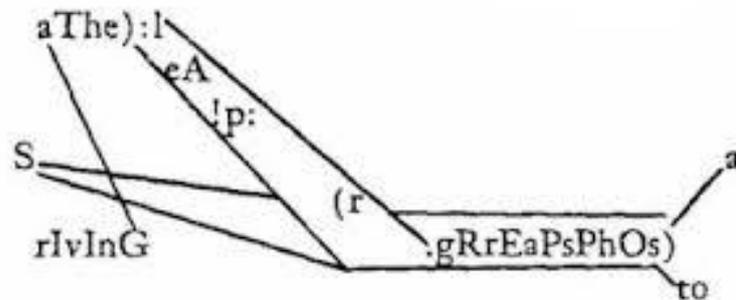
This kind of linguistic deviation is considered to be the easiest type to identify as it deals with the entire system of writing. Effectively, by using the graphological deviation, Cummings managed to explore a unique and significant form of the shape of poetry, in addition to the technique of capitalization and decapitalization of alphabetic letters and words as well as the manipulation of punctuation that gave his poems an awkward way of reading.

a. Text Format

In contrast to writers of contracts, business letters, and prose, poets are not bound to the methodological way of writing poetry. They have the privilege to discard the conventional format of their text. In other words, the poet is the master of his own text. This is because the poems' format or pattern is closely tied to its theme and major concepts which is a prominent feature of Cummings' poetry. Ample examples can be found in his completed poem collection to illustrate this point. We shall take for example the poem '*r-p-o-p-h-e-s-s-a-g-r*' Cummings (2016, p. 396)

At a first glance, few people will recognize the theme of this poem, especially that its title is scrambled. However, reordering the scrambled letters of the title '*r-p-o-p-h-e-s-s-a-g-r*' will lead to the theme that Cummings is talking about, and which is 'grasshopper'. If we take a closer look inside the core of the poem, we would see a drawing of a grasshopper. Consider the Figure 3.11:

Figure 3.11: Cubic Painting of a Grasshopper in Cummings' 'r-p-o-p-h-e-s-s-a-g-r'



b. Capitalization and Decapitalization

Cummings' usage of capitalization and decapitalization helped in making his poetry so unique, and that is violating the norms of capitalization. What is so special about this technique is that Cummings capitalized what is not supposed to be capitalized and decapitalized what is supposed to be capitalized according to the norms of capitalization rules. One of the poems illustrates best this kind of deviation is Cummings poem 'fearlessandbosomy' Cummings (2016, p. 792)

fearlessandbosomy

this

grand: gal

who

liked men horses roses

&\$(in

that

order)is

wHISpEr

it

left;at the age

of

ysomethi

ng

(imagine)

with,pansies

c. Punctuation

Amazing is how Cummings manipulates the eccentric treatment of punctuation in his poems. Those who are not familiar with Cummings' deviations may believe that Cummings put punctuation at random or as if he loaded a shotgun with some punctuation then shot it on his poem. But as a matter of fact, every placement of punctuation on the poem has a particular goal. This can be seen in his poem 'why' Cummings (2016, p. 793)

why

don't

be

sil

iy

,o no in-

deed;

money

can't do(never

did&

never will)any
 damn
 thing
 :far
 from it;you
 're wrong,my friend. But
 what does
 do,
 has always done
 ;&
 will do alw
 -ays something
 is(guess)yes
 you're
 righf.my enemy
 . Love

d. Lexical Deviation

One of the most dominant linguistic deviations is the lexical one; this should be placed in the central position of linguistic deviation. This kind of deviation is represented by **neologism**. By neologism, Leech (1969, p. 42) means that “Neologism, or the invention of new ‘word’ is one of the most obvious ways in which a poet may exceed normal resources of language”. In this respect, the new created words are called ‘*nonce-formation*’ this is because they are created for the sake of a particular situation, as in our case writing poetry, instead of increasing the

amount of the English vocabulary. This level of deviation is commonly composed of affixation, compounding and conversion.

e. Affixation

Affixation is considered as one of the most effective and industrious means of enriching the English vocabulary. It possesses two entities prefixation and suffixation where the former is the addition of a prefix to the beginning of a word or morpheme that already obeys the rules of morphology, in a conventional manner. Let us take, for example, the prefix ‘un’ which, according to the affixation rule, is added to a verb: (Un + Verb) for example (un-do) to express the opposite. However, Cummings violated the norm of morphology in his poem ‘*if learned darkness from our searched world*’ (Cummings 2016, p. 148) by adding the prefix ‘un’ to an abstract noun: ‘*should wrest the rare **unwisdom** of thy eyes*’. The latter, on the other hand, is the addition of a suffix to the end of a word or morpheme that also obeys the morphological rules. The suffix ‘ly’, for example, is commonly added to an adjective to form an adverb; following the morphological rule: (adjective + ly → adverb) as in (humb-ly). The violation of this rule can also be seen in Cummings’ poem ‘*if i should sleep with a lady called death*’ (2016) where he attached the suffix ‘ly’ to the end of a gerund:

Seeing how the limp huddling string
of your smile over his body squirms
kissingly,i will bring you every spring
handfuls of little normal worms.

f. Compounding

Compounding is a technique where the writer has the ability of putting two or more-word items together to create a compound word. We can categorize them according to their nature as there are two types of compound words, viz words that are directly joined together such as

‘sailboat’, ‘lifetime’ and ‘handbook’, and words that can be joined by a hyphen as in ‘brother-in-law’, ‘fine-tune’ and ‘X-ray’. Cummings, in his poem ‘*when*’ (2016, p. 442), compounds words in way that really disturbs reader’s perception:

!o-ras-ourh an-dorg-an ble-at-ssw-ee-t-noth ings orarancidhurd

ygurdygur glingth umpssomet hings(whi,le sp,arrow,s wince

among those skeletons of these trees)

when

sunbeams loot

g. *Conversion*

This technique is another way in reaching nonce-formation. In common sense, conversion includes a word with a new morphological function in condition that it keeps its original form. This allows the shift of different parts of speech, so to speak, the alternation of a word from verb to noun, adjective to adverb and vice versa. The word ‘fast’, for instance, can be a noun, verb, adjective and an adverb respectively in the following sentences:

- The **fast** of Ramadan will start from 29th of June till 29th of July of this year.
- Muslims **fast** obligatory and voluntarily.
- The cheetah is a very **fast** runner
- Usain Bolt can run **fast**.

Cummings’ poem ‘*O Sweet spontaneous*’ (2016, p. 58) the adjective ‘spontaneous’ which is originally modifies a noun, functions, itself, as a noun that is modified by another adjective ‘sweet’.

h. Semantic Deviation

Since figurative language is the core of poetry, semantic deviation is considered as the most significant linguistics deviation. There are many subcategories of linguistic deviation in the semantic field, however, two kinds will be approached in this section.

i. Honest Deception

As the name of this technique implies, it is in its own right paradoxical, that is to say, it is not a deception for real. As a matter of fact, it is manipulated by literary writers, not for the sake of deception but rather for that of emphasizing. Honest deception includes hyperbole, litotes and irony. According to Leech (1989) these three items share one common goal in which they all misrepresent the truth. Hyperbole, as a Figure of speech includes overstatement as it twists the truth by saying too much, in other word, it exaggerates in expressing a thought or a feeling. Litotes, as a Figure of speech, includes understatement as it does not say enough. At last, the Figure of irony which points at the contrary of what one feels to be the case. The focus in this section is on the technique of hyperbole in reference to Cummings' poems.

As asserted before, the language of hyperbole expresses a thought in a manner which is too exaggerated to take for real. This is intended by writers who seek to make the readers believe in the message they deliver. By exaggerating in their writings, literary writers achieve an extraordinary effect. Cummings' poem '*listen*' (2016, p. 34) possesses this technique where Cummings expresses in an exaggerated way the burden of carrying agony during a millennium period of time:

through day and space i saw you close

your eyes and **i came riding**

upon a thousand crimson years arched with agony

i reined them in tottering before
the throne and as
they shied at the automaton moon from

4. E. E. Cummings' Style as a Fine Art

A closer examination of Cummings' literary works as an art is based on Cunningham's (1941) ten factors, whereby he believes that what makes a literary work a fine art is comparing it with factors or qualities such as universality, individuality, suggestiveness; psychical, or aesthetic, distance, unity, harmony, variety, contrast, balance and proportion, and rhythm. Therefore, these mentioned factors are used as criteria for our examination in addition to supporting examples from Cummings' poems taken from '*E. E. Cummings: Complete Poems, 1904-1962*' edited by G. J. Firmage and S. Dunn in 2016.

Universality

Universality is defined by Cunningham (1941) as "The degree or extent to which the work of art possesses an aesthetic, emotional or thought content that gives it significance as a commentary on life" (p.46). In other words, universality is an artistic literary entity. Aggertt and Bowen (1966) asserted that universality 'deals with human motives and experiences common to all men'. (p. 105). Cummings' (1961) poem '*dying is fine' but death*' addresses death versus dying and how they both have completely different notions, yet they are common things to all human beings. Hence, Wegner (1965) mentions that 'death' according to Cummings is "a blight upon happiness, a great misfortune which shatters the illusion of security of those still breathing." (p. 48). On the other hand, 'Dying' is 'an invisible transformation or change of condition that man to no great extent has been able to alter or impede or ritualize or squeeze into a pattern of conformity.' (p. 49).

✚ Individuality

The second factor of literature as an art, as stated by Cunningham (1941) is “the degree to which in whole or in part, the particular conception and execution differs from any and every other concept and treatment.” (p. 51) In other words, individuality, so to speak, makes a particular literary work differ from other literary works thanks to its characteristic features and qualities. Individuality can be seen vividly in Cummings’ works, who is considered by Times magazine (1962, p.102) as “a man who perfected the idiom of American common speech”. Cummings, with his newness and uniqueness into language brought a new challenging perspective towards literature. An illustration of his freshness into language can be pointed in Cummings’ (2016, p. 669) poem ‘*luminous tendril of celestial wish*’ where he coined new words. Thus, his individual use of language as a characteristic feature has a pragmatic reference more than the semantic one. See the example below.

luminous tendril of celestial wish
 (whying diminutive bright deathlessness
 to these my not themselves believing eyes
 adventuring,enormous nowhere from)
 querying affirmation;virginal
 immediacy of precision :more
 and perfectly more most ethereal
 silence through twilight's mystery made flesh—
 dreamslender exquisite white firstful flame

—new moon!as(by the miracle of your
 sweet innocence refuted)clumsy some
 dull cowardice called a world vanishes,
 teach disappearing also me the keen
 illimiTable secret of begin

Cummings (2016, p. 669)

Suggestiveness

Suggestiveness deals with the interpretation of the reader on the literary piece that he faces. Cunningham (1941) defines it as “the degree to which the work of art requires that the observer or hearer shall translate it into terms of his own experience and imagination” (p. 58). In this respect, the works of Cummings is considered, among other things, as ‘unconventional ... capitalization ... and individual letters to produce visual typographical forms’ Wegner (1965, p. 49). Best example for this factor can be illustrated in Cummings’ (2016, p. 383) poem ‘*mOOn Over tOwns mOOons*’ where he suggests the rising and the falling of the moon by the controlling of capitalization of the ‘O’s’ at the beginning of the poem and the capitalization of every letter except the ‘O’s’ at its end. Here, Cummings is suggesting the rising and the falling of the moon, but through his own style, Cummings allows the reader to translate into his own experience and imagination the movement of the moon.

mOOn Over tOwns mOOon
 whisper
 less creature huge grO
 pingness
 whO perfectly whO
 float

newly alOne is
 dreamiest

 oNLY THE MOON o
 VER ToWNS
 SLowLY SPRoUTING SPIR
 IT

Cummings (2016, p. 383)

✚ *Psychical, or Aesthetic, Distance*

For Cunningham (1941, p. 36) Psychical, or Aesthetic, Distance is “the degree to which the artist has presented a sense of unreality in his work, thereby attaining a result which will never be confused with activity.” This factor, to some extent, deals with the transcendent way of writing. Transcendentalism, as Friedman (2019, p. 16) defines, is the ‘freedom from limitations and has its source in a sinless universe ... involves an opposition that illustrates this general freedom in a particular way....’ The flavour of unreality that floods many of Cummings’ work may be richly seen in his poem ‘*who know’s if the moon’s*’:

who knows if the moon’s
 a baloon,coming out of a keen city
 in the sky—filled with pretty people?
 (and if you and i should
 get into it,if they
 should take me and take you into their baloon,
 why then
 we’d go up higher with all the pretty people
 than houses and steeples and clouds:
 go sailing

away and away sailing into a keen
city which nobody's ever visited, where
always
it's
Spring) and everyone's
in love and flowers pick themselves

Cummings (2016, p. 202)

In this poem Cummings presented ideas that are vastly dissimilar and contradicted such as the true man and woman who have no boundaries in exceeding the 'real' world's borders and live in a more real one where switching from one kind of a feeling to another, Friedman (2019).

Unity

According to Cunningham (1941, p. 24) unity is "the dominant or fundamental conception which controls the whole and gives significance to its parts". In any literary piece, unity is what makes all the elements in a piece of writing fit together to create a harmonious effect. In addition to that, its necessity in an artistic literary work lies in its affective understanding. Cummings' novel '*The Enormous Room*' 1922, speaks about his imprisonment in a French camp prison during the First World War, yet for Friedman (2019, p. 27) "the structure is basically autobiographical, it so happens that [the total] incident was organically complete in itself....". Indeed, unity can be achieved by the emotional tone of the book since it happened in Cummings' novel, it was found in the experience itself.

Harmony

In a literary work of artistic value, harmony, as Cunningham (1941, p. 24) defines it, is “the relationship among the parts and between the parts and the whole...” Cumming’s only sister, Elizabeth Qualey spoke about the factor of harmony in one of his poems, ‘*in Just-*’.

The first and the most exciting sign that spring had really come was the balloonman. First you hear his whistle in the distance; then he would come walking down the street, carrying a basket full of balloons of all colors tugging at their strings. (Cited in Norman, 1958, p. 21)

In the poem ‘*in Just-*’, there are two major views that emerge harmonically. The first view is that of a child’s view of the balloonman and the second one is the adult’s view. This is shown at two levels, (i) at the beginning of the poem where there is a sporadic word spacing which suggests a rise of child’s spring, (ii) the word spacing at the end of the poem starting with ‘it’s’ apparently suggests the patience of an adult paying attention to the progress of the balloonman as he comes closer then withdraws.

in Just-
spring **when the world is mud-**
luscious the little
lame balloonman
whistles **far** **and wee**
and eddieandbill come
running from marbles and
piracies and it's
spring

when the world is puddle-wonderful
 the queer
 old balloonman whistles
 far and wee
 and bettyandisbel come dancing
 from hop-scotch and jump-rope and
it's
spring
and
 the
 goat-footed
balloonMan whistles
far
and
wee

Cummings (2016, p. 27)

Variety

According to Cunningham (1941, p. 25), in an artistic literary work, variety is what “holds attention and interest...” so that the writer avoids violating the two previous factors (unity and harmony) he must protect the factor of variety. Cunningham (1941) confirms “the problem of the artist is to secure variety without breaking the patterns of unity and harmony....” (p. 25) The way Cummings (2016) wrote his poem ‘*POEM, OR BEAUTY HURTS MR. VINAL*’ allowed him to secure his variety by using quotations from the song ‘*America, the Beautiful*’

and slogans such as ‘*Girl With Wrigley Eyes*’ and ‘*Just Add Hot Water And Serve*’ as showed in the following lines:

you, land of the Cluett
 Shirt Boston Garter and Spearmint
Girl With The Wrigley Eyes(of you
 land of the Arrow Ide
 and Earl &
 Wilson
 Collars)of you i
 sing:land of Abraham Lincoln and Lydia E. Pinkham,
 land above all of **Just Add Hot Water And Serve--**
 from every B.V.D.

Cummings (2016, p. 228)

Contrast

Cunningham (1941) sees the factor of contrast similar to a human being’s feelings and responses. Indeed, what makes us human is the way we feel and the way we response to different situations. In this respect, a literary work is best understood when feelings and responses are put to oppose each other.

Balance and Proportion

These two factors cannot be separated, as each one is complementary to the other. Furthermore, they are frequently attained together in an artistic work. Cunningham (1941, p. 93) defines balance as “that factor which provides equilibrium among the significant parts...” whereas he (1941, p. 94) defines proportion as “that factor which gives to each part its suiTable relative amount, dimension and weight as related to the whole.” Being influenced by the Times

Magazine Article, entitled ‘*Personality*’ (1952, p. 67) Cummings wrote ‘*oil tel duh woil doi sez*’ in dialectal language so that he creates balance and proportion between the dialect and the identity of the speaker. Dialects such as ‘*Fur Croi saik*’ and ‘*givusuhtoonunhuhphugting*’ are used in the poem to show the true identity of the speaker in a complete version. The way of writing this poem has been written dialectically otherwise the reader might not be able to enjoy the poem regardless of its harsh language.

✚ *Rhythm*

In a literary work, Cunningham (1941, p.25) presents rhythm as “the fundamental motion produced by a release of energy alternating with rests”. In addition, Cunningham (1941) also believes that rhythm can be divided into two entities; (i) rhythm as the **carrier** of literary works’ content, (ii) rhythm as the **impartor** of that content to a reader of an artistic literary work. In the poem ‘*hist whist*’ the factor of rhythm is a dynamic asset:

hist whist

little ghostthings t

ip-toe

twinkle-toe

little twitchy

witches and tingling

goblins

hob-a-nob hob-a-nob

little hoppy happy

toad in tweeds

tweeds

little itchy mousies

with scuttling

eyes rustle and run and

hidehidehidewhisk

whisk look out for the old woman

with the wart on her nose

what she'll do to yer

nobody knows

for she knows the devil ooch

the devil ouch

the devil

ach the great

green

dancing

devil

devil

devil

devil

wheeEEE

(cited in Cummings, 2016, p. 28)

As it is shown in the poem above, Cummings' use of rhythm, on one hand, as an imparter takes the reader back in time to the childhood moment, by a re-creation and reproduction of children's sounds 'hob-a-nob,' 'whish,' and wheeEEE. On the other hand, Cummings also used rhythm as a carrier that lies in the typographical order of the poem to show the production of the sound and how children say it.

According to the above analysis, it is quite crucial to say that certain Cummings' literary works possess artistic literary characteristics of universality, individuality, suggestiveness, psychical or aesthetic distance, unity, harmony, variety, contrast, balance and proportion and rhythm. Thus, it is appropriate to collude that Cummings' literary work are art according to Cunningham's ten factors.

II. METHODOLOGY

The following section deals with the methodology that was conducted and presents the procedures that were followed for data collection and for data analysis. In this respect, the researcher has adopted a textual methodology, whereby a particular process is taken into consideration throughout specific steps. On this point, the first procedure involves the selection of specific poems of both poets, that is to say, Apollinaire and Cummings. Indeed, Apollinaire's selected poems are extracted from Apollinaire's book '*Calligrammes: Poems of Peace and War 1913-1916*' which was originally published in 1918 in French language then translated in to English language by A. H. Greet in 1980. Contrastively, Cummings' selected poems, on the other hand, are extracted from '*E. E. Cummings: Complete Poems, 1904-1962*' edited by G. J. Firmage and S. Dunn in 2016.

The selection of the poems was not conducted at random, but rather the poems were selected based on a specific set of criteria. From this perspective, the researcher was meticulous in selecting the poems by relying on the following significant characteristics:

➤ *The format of the poems*

What distinguishes the selected poems from other poems written by the same poets is the form in which they were written which makes the poems so difficult to be recognized/categorized as literary works or rather say poems per se.

➤ *The unreadability of the poems*

One of the main reasons behind the selection of the poems is the difficulty of reading them. This feature creates a real hindrance for readers to get acquainted with the poem, let alone its interpretation. This feature, of inability to read the selected poems, will be vividly seen in readers' reaction towards Apollinaire's and Cummings' selected poems.

The second procedure of data collection consists of an online-questionnaire (see appendix...) which was addressed to English language teachers and students from different Algerian universities (mainly English Departments from the Universities of Mostaganem, Oran, Tiaret, and Tlemcen). To avoid any confusion regarding the use of the questionnaire in the current research; **the data set that was yielded by the questionnaire does not represent the focal data set of our analysis**, but is rather used **to backup** (i) the unfamiliarity of readers with this type of poetry (ii) the difficulties that readers face while attempting to read such type of poems.

The selected poems are introduced below and are put in the form of Figures. This is done due to the fact of copy and paste from the original source. Consequently, this method (copy &

paste) enables the researcher to preserve the genuineness of the poems in terms of form, spacing and punctuation.

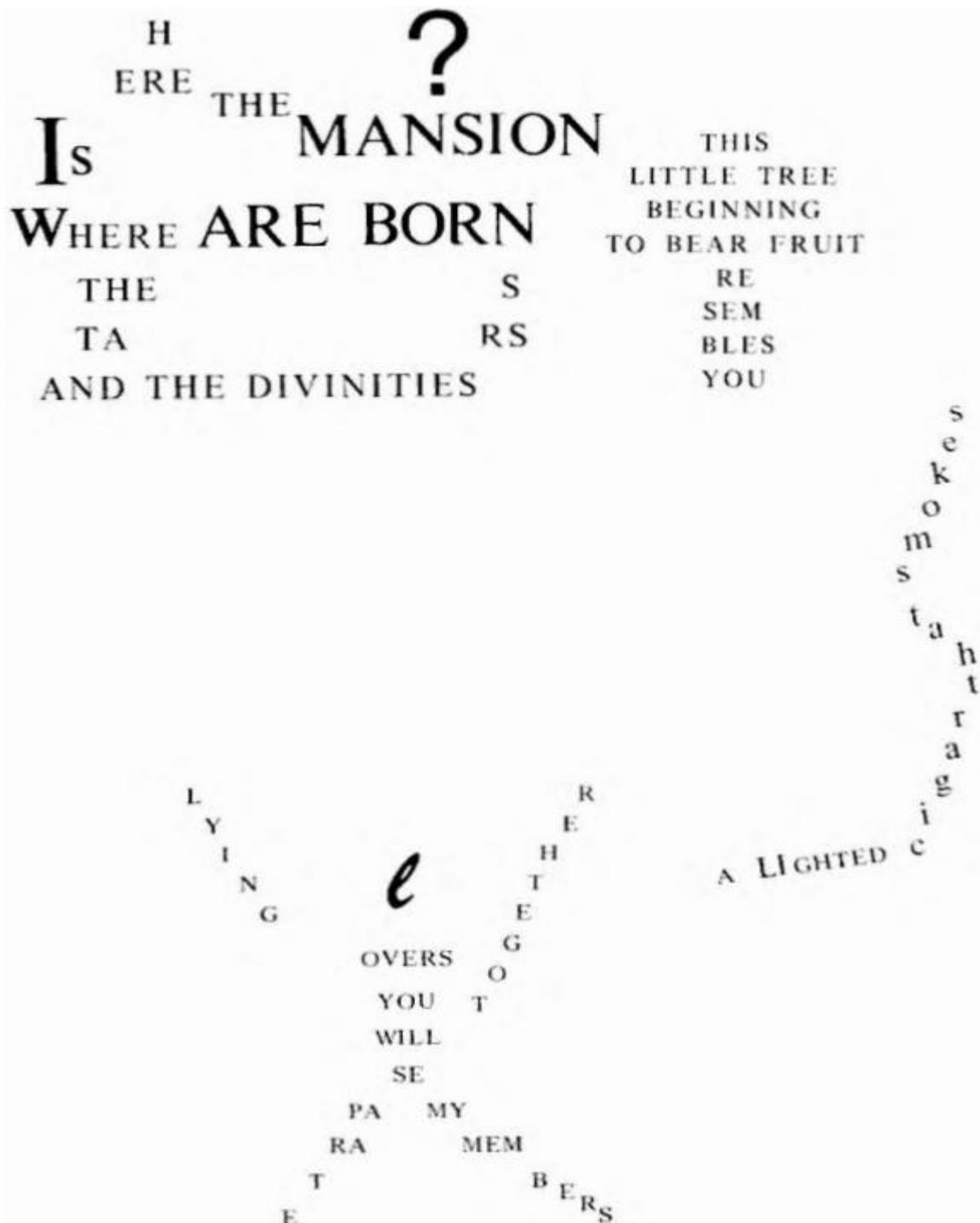
1. Apollinaire's Selected Poems

As asserted earlier, Apollinaire's selected poems are adapted from his book which was first published in French language in 1918. However, the poems below are taken from the English translated version by Greet 1980, and thus each poem is accompanied by a brief description.

A. The Poem 'Paysage'

The poem '*Paysage*' which translate to (Landscape) was first published in *Les Soirée de Paris* in July-August 1914. However, in some books or articles it may be found under the title '*Paysage Animé*'. The poem is presented in the subsequent Figure.

Figure 3.12: The Poem ‘Paysage’ by Apollinaire (1914)

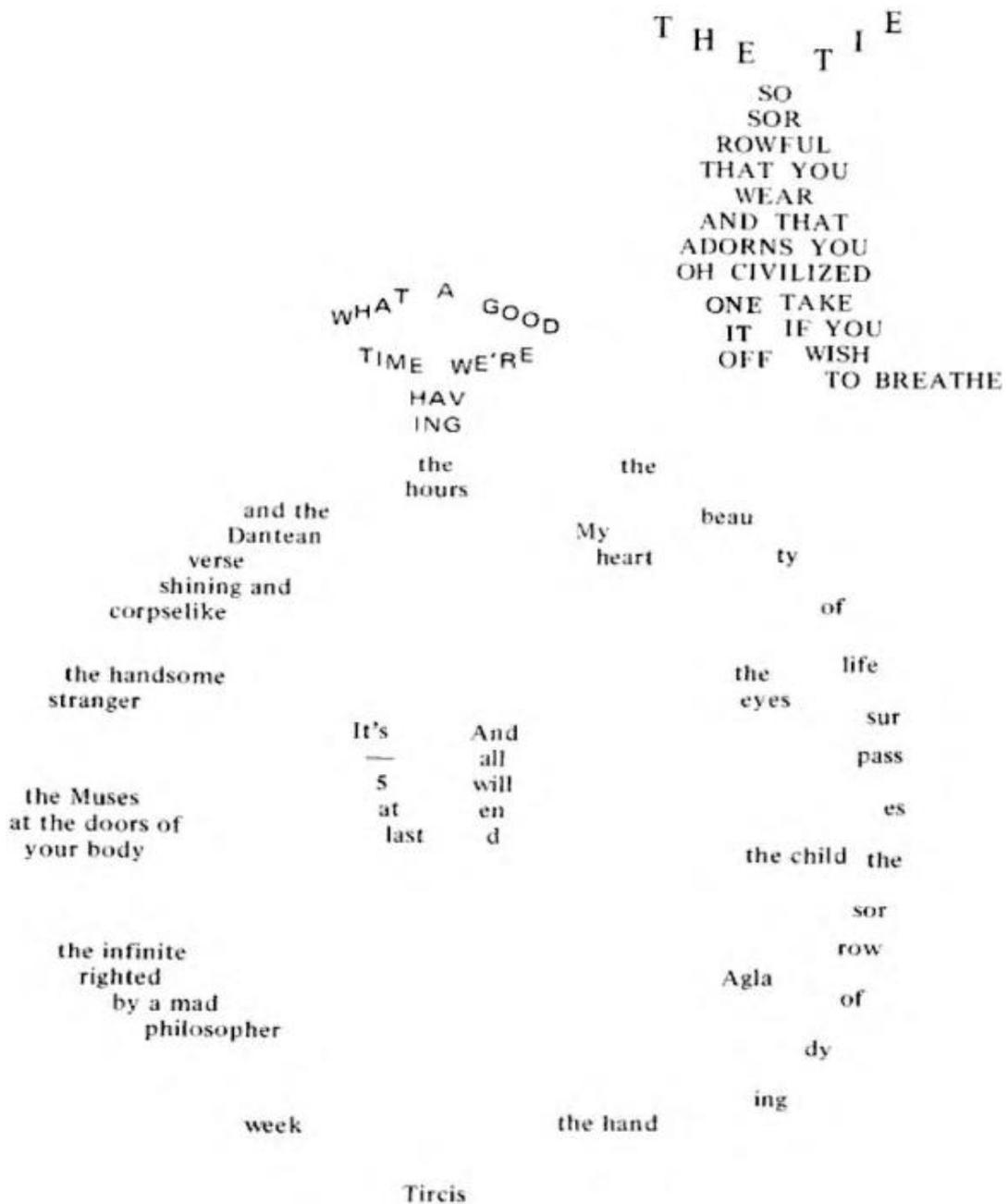


Note: Reprinted from Apollinaire (1918/1980, p. 31)

B. The Poem ‘*La Cravate et la Montre*’

Similar to the previous poem, the poem at hand which translate to (The Tie and the Watch) was published in July-August 1914 in *Les Soirée de Paris*. The poem is presented in the Figure below.

Figure 3.13: The Poem ‘*La Cravate et la Montre*’ by Apollinaire (1914)

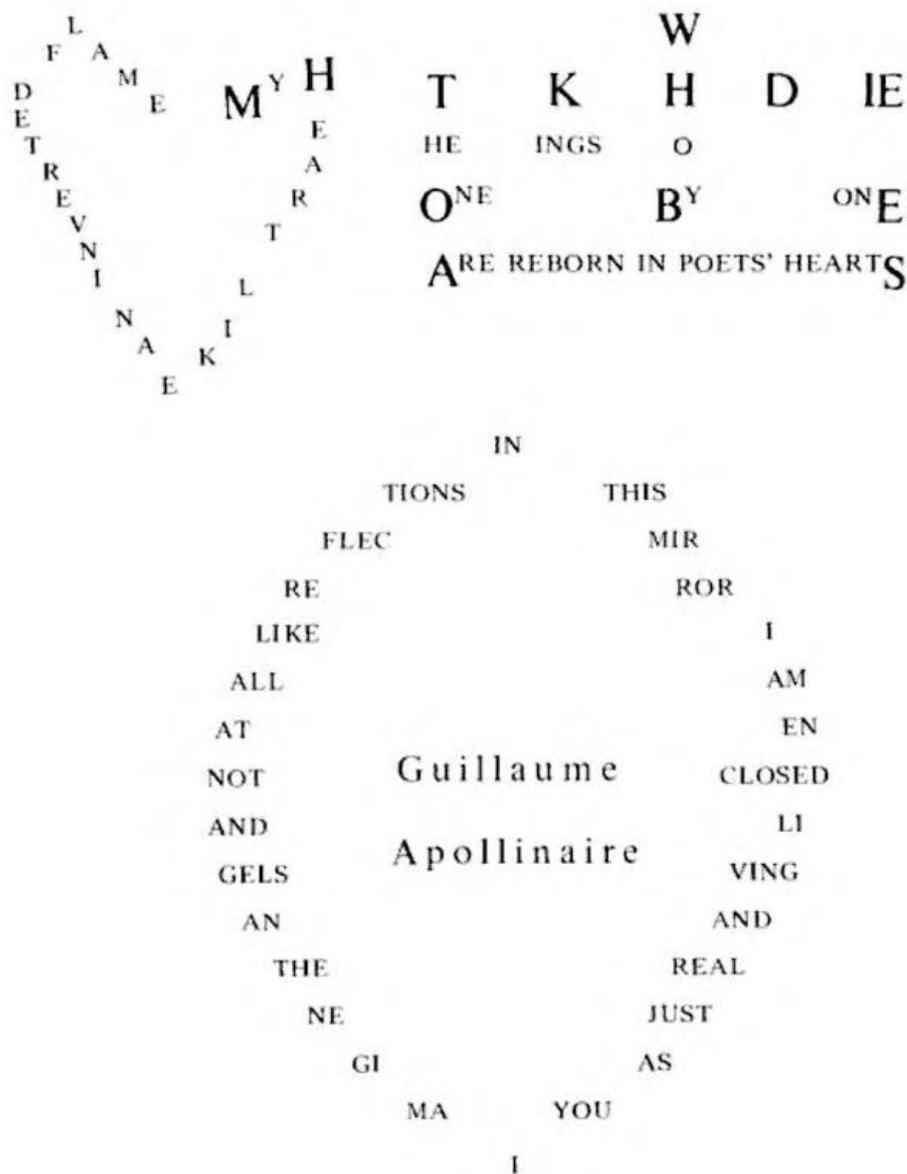


Note: Reprinted from Apollinaire (1918/1980, p. 79)

C. The Poem ‘*Cœur Couronne et Miroir*’

The poem ‘*Cœur Couronne et Miroir*’ which translates to (Heart Crown and Mirror) was published by Apollinaire in *Les Soirees de Paris*, (July-August 1914). The poem is introduced in the following Figure.

Figure 3.14: The Poem ‘*Cœur Couronne et Miroir*’ by Apollinaire (1914)

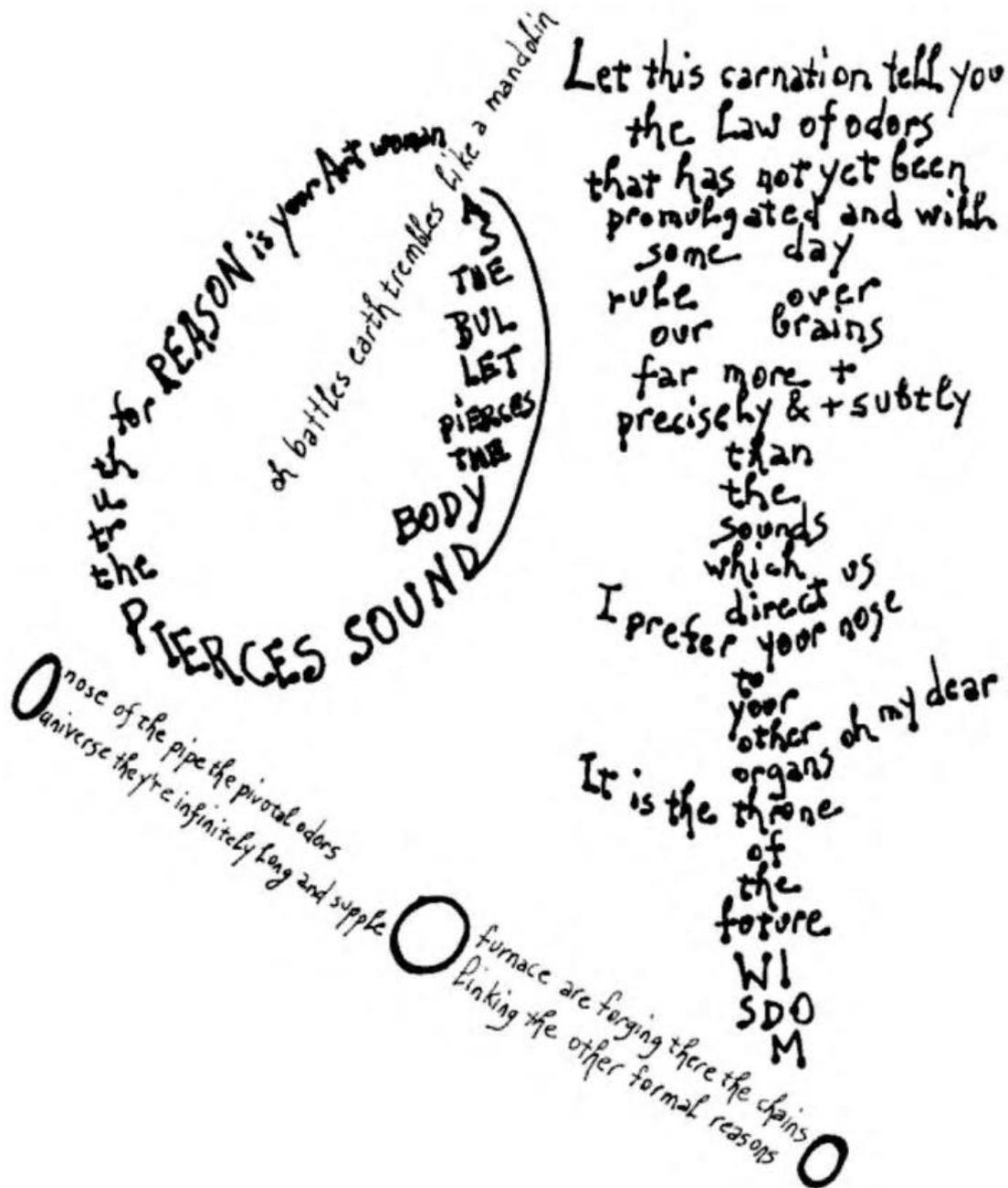


Note: Reprinted from Apollinaire (1918/1980, p. 89)

D. The Poem ‘La Mandoline l’Œillet Et Le Bambou’

This poem which translates to (The Mandolin Carnation and Bamboo) was first published in *Calligrammes* in 1914. It is introduced below.

Figure 3.15: The Poem ‘La Mandoline l’Œillet Et Le Bambou’ by Apollinaire (1914)



Note: Reprinted from Apollinaire (1918/1980, p. 112)

2. Cummings' Selected Poems

Cummings' selected poems are extracted from '*E. E. Cummings: Complete Poems, 1904-1962*' edited by G. J. Firmage and S. Dunn in 2016, and they are as follows:

A. The Poem 'l(a'

The first poem entitled '*l(a'* by Cummings (2016, p. 673) is selected from 1958 collection *95 Poems* under the sequence of "*l*". It is presented below.

Figure 3.16: The Poem 'l(a' by Cummings (1958)

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Note: Reprinted from Cummings (2016, p. 673)

B. The Poem ‘SNOW’

The second poem entitled ‘SNOW’ by Cummings (2016, p. 421) is selected from *[all those who got] (1944)* under the sequence of 38. It is presented in the subsequent Figure below.

Figure 3.17: The Poem ‘SNOW’ by Cummings (1958)

SNOW

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 ArE

GLIB SCARCELYEST AMONGS FLOWERING

Note: Reprinted from Cummings (2016, p. 421)

C. The Poem 'ygUDuh'

The third poem entitled 'ygUDuh' by Cummings (2016, p. 547) is selected from *lxl [One Times One]* (1944) under the sequence of 1. It is introduced in the following Figure.

Figure 3.18: The Poem '1(a)' by Cummings (1958)

ygUDuh

ydoan
yunnuhstan

ydoan o
yunnuhstan dem
yguduh ged

yunnuhstan dem doide
yguduh ged riduh
ydoan o nudn
LISN bud LISN

dem
gud
am

lidl yelluh bas
tuds weer goin

duhSIVILEYEzum

Note: Reprinted from Cummings (2016, p. 673)

D. The Poem 'r-p-o-p-h-e-s-s-a-g-r'

The fourth poem entitled r-p-o-p-h-e-s-s-a-g-r by Cummings (2016) is selected from *No Thanks*, the 1935 manuscripts under the sequence of '13'. It is presented in the Figure below.

Figure 3.19: The Poem ‘*r-p-o-p-h-e-s-s-a-g-r*’ by Cummings (1935)

r-p-o-p-h-e-s-s-a-g-r

who

a)s w(e loo)k
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rIvInG .gRrEaPsPhOs)

to

rea(be)rran(com)gi(e)ngly
,grasshopper;

Note: Reprinted from Cummings (2016, p. 396)

E. The Poem ‘*the sky was*’

The fifth poem entitled *the sky was* by Cummings (1923) is selected from *The Tulips and Chimneys*, the 1922 manuscripts under the sequence of ‘VI’. It is introduced in the subsequent Figure.

Figure 3.20: The Poem 'the sky was' by Cummings (1923)

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Note: Reprinted from Cummings (2016, p. 64)

In consideration of the foregoing, the abovementioned poems of Apollinaire and Cummings were presented to 192 participants; 36 teachers and 156 Master students of English of different Algerian universities within an online questionnaire (see appendix...). However, as mentioned earlier, the use of the questionnaire in the current research is merely exploited to sustain that the selected poems fit the profile that is required, so to speak, the unfamiliarity of

readers with this type of poetry they belong to and the predicament of their readability which is considered as the first barricade readers face. Thus, the following sections present readers' reactions towards Apollinaire's and Cummings' selected poems.

3. Readers' Reactions Towards Apollinaire's and Cummings' Selected Poems

Participants' reactions towards Apollinaire's and Cummings' selected poems indicate that most of them (if not all in some poems) are not acquainted with this type of poetry with a percentage of 99%, let alone reading them easily or at first glance. Some of the reactions are introduced below:

➤ *Question # 01: Do you recognise the type of the following text?*

The majority of the teachers answered with a 'NO' which means that they are not familiar with this type of poetry.

➤ *Question # 02: Can you read any of the following texts?*

Most of the participants could not read the poems, some of them could read parts of the poem but could not get the full meaning of the poems.

➤ *Question # 03: what are the difficulties that prevented you from reading the texts?*

In this case each participant gave a reason that prevented him/her from reading the poems.

However, the reactions below differ from one poem to another:

✚ Participant 01 response: *"This isn't a regular writing form and as suggested above, it requires skills of the field."*

✚ Participant 02 response: *"Some of the words aren't easy to read because of the inconsistent shapes that letters were put in."*

✚ Participant 03 response: *"How it's written! it looks messy and difficult to read without even trying to do so"*

- ✚ Participant 04 response: *“Scrambled, not coherent, not commonly used, not in linear way, there shapes and forms acting as intruder between the letter of alphabets.”*
- ✚ Participant 05 response: *“Seems morphologically and syntactically incorrect; no coherence.”*
- ✚ Participant 06 response: *“In each poem I could read some parts but not the whole because of the messy words.”*
- ✚ Participant 07 response: *“It’s not easy to Figure out how to read it”*
- ✚ Participant 08 response: *“I can read the words but can't connect them”*
- ✚ Participant 09 response: *“Many clusters of consonants. many starting with the same "y" the rest not distinguishable.”*
- ✚ Participant 10 response: *“It's an unknown language for me”*
- ✚ Participant 11 response: *“I have found difficulties in language, I don't know their words”*
- ✚ Participant 12 response: *“Maybe its unusual shape can prevent us from reading it easily”*
- ✚ Participant 13 response: *“Words are messy”*
- ✚ Participant 14 response: *“How it's written, it doesn't look like English”*

With the participants’ reactions towards the selected poems, the researcher believes that it is a satisfactory evidence that Apollinaire’s and Cummings’ poems are not well known among English teachers and students. Moreover, these poems are hard to read.

4. Procedures of Approaching the Selected Poems

After presenting the poems of both poets, the next procedures relate to data analysis and occur in a series of steps. The first step deals with identifying cryptographic features of each

poem, whereby the identification helps the researcher to choose the appropriate decrypting tools.

The second step is concerned with the decryption of the poems (if they possess cryptographic features in the first place). That is to say, making the unreadable poem readable, whereby this process will facilitate the reading of the poem without affecting its original form and spacing. As a matter of fact, in order for someone to decrypt an encrypted text s/he needs the key of decryption which is not the case in the current research. However, as an alternative solution, the researcher uses another type of decryption which is cryptanalysis. The latter enables the researcher to decrypt the poems that have cryptographic characteristics without the required key. In other words, the researcher will hack the coded poems and convert what was once unreadable/ciphered into a readable text, or rather say cleartext.

After decrypting the poems and making them readable, the researcher moves to the last step. The latter deals with a stylistic analysis of the poems, whereby some of the linguistic deviations are taken into consideration. In this regard, each poem will be dealt with stylistically according to the type of linguistic deviations that it carries.

After providing the collected data which are the selected poems of the poets Apollinaire and Cummings, presenting some hard evidence that displays the difficulty of the poems at hand and elucidating a detailed clarification about the analysis procedures. The following chapter takes the aforementioned procedures into action.

CHAPTER FOUR: DECRYPTION, ANALYSIS AND DISCUSSION

Having established some theoretical background, in the previous chapters which are concerned with the notion of cryptology, stylistics and the methodology conducted, the current chapter comprises the decryption of the previously introduced poems, a stylistic analysis of these poems, and the discussion of the findings. All these are done in separate, yet connected, steps. Correspondingly, the first step is concerned with depicting cryptographic peculiarities in the selected poems of both poets, viz Apollinaire and Cummings. The second step is concerned with decrypting, or rather deciphering the poems that possess cryptographic features. Then, the third step involves a stylistic analysis of each poem depending on the linguistic deviation that the poets implemented in the poem.

**I. EXTRACTING AND DECRYPTING CRYPTOGRAPHIC FEATURES FROM
THE POEMS**

To begin with, the extraction of cryptographic peculiarities from the poems is considered as a pre-analytical process. This will help the researcher identify the poems that display cryptographic features. In this context, the researcher relies on a set of criteria which determine the secession of the operation starting with:

- ☞ *The form of the poem*
- ☞ *The Use of Punctuation marks and symbols*
- ☞ *The use of capitalization*
- ☞ *Substitution of letters and words*

- ☞ *The use of foreign/dead languages*
- ☞ *The use of lining, displacement and spacing*
- ☞ *Words distortion and invention*
- ☞ *Hidden shapes/Figures*

Accordingly, the abovementioned criteria are dealt with whereby the researcher starts with Apollinaire's selected poems then moves to Cummings' poems.

1. Cryptographic Peculiarities in Apollinaire's Selected Poems

A. Cryptographic Peculiarities in the Poem 'Paysage'

It is an undeniable fact that the poem entitled 'Paysage' (Landscape) is considered as one of the most confusing and perplexing poems ever written by Apollinaire. For that reason, the poem is subjected to the aforementioned criteria, where the researcher starts with:

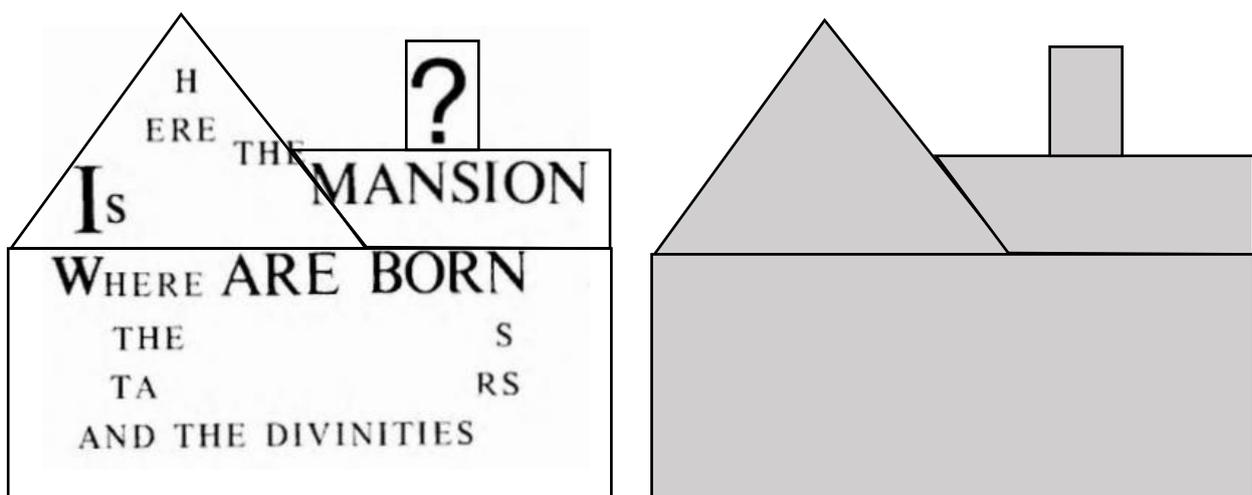
☞ *The Form of the Poem*

The form in which the poem is written seems challenging enough. It represents four different graphic forms which are as follows from top to bottom:

☞ *Form exhibition # 1:*

The first graphic form situated on the left top of the poem reveals the shape of a house. The latter seems to have a cryptographic peculiarity, that is to say transposition encipherment. The Figure below shows that the written words have been written horizontally from left to right.

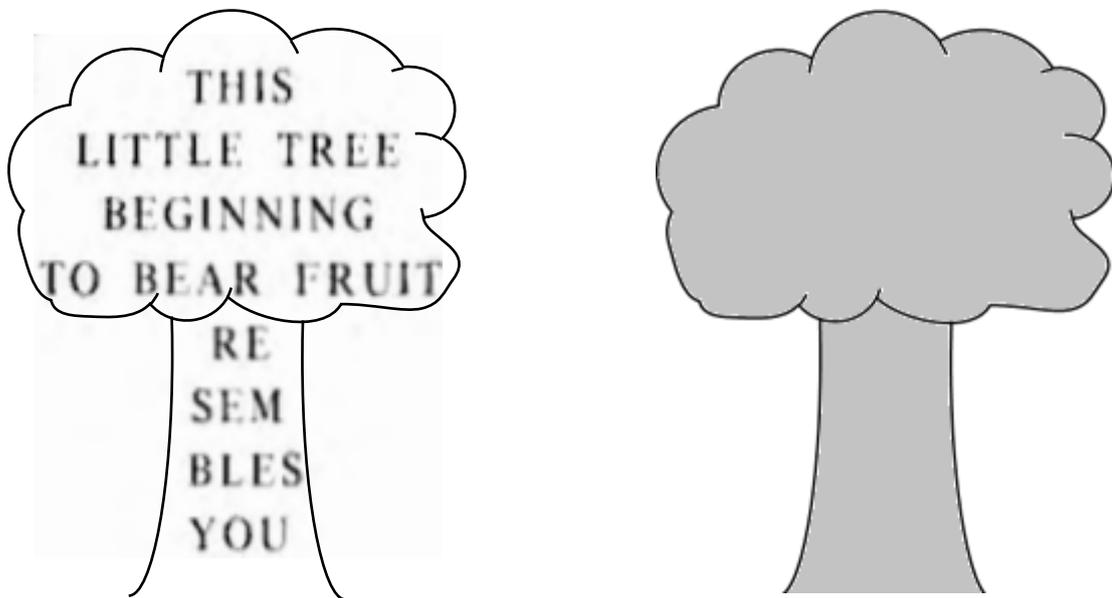
Figure 4.1: House Graphic Form in the Poem 'Paysage'



☞ *Form exhibition # 2:*

The second graphic form situated on the right top of the poem represents a shape of a tree. The Figure below is not difficult to read, except for the lower part where the word RESEMBLES is chopped down into [RE], [SEM] and [BLES], yet the form does not seem to have any cryptographic features since it can be easily read: ‘THIS LITTLE TREE BEGINNING TO BEAR FRUIT RESEMBLES YOU’ (Apollinaire, ‘Landscape’ poem)

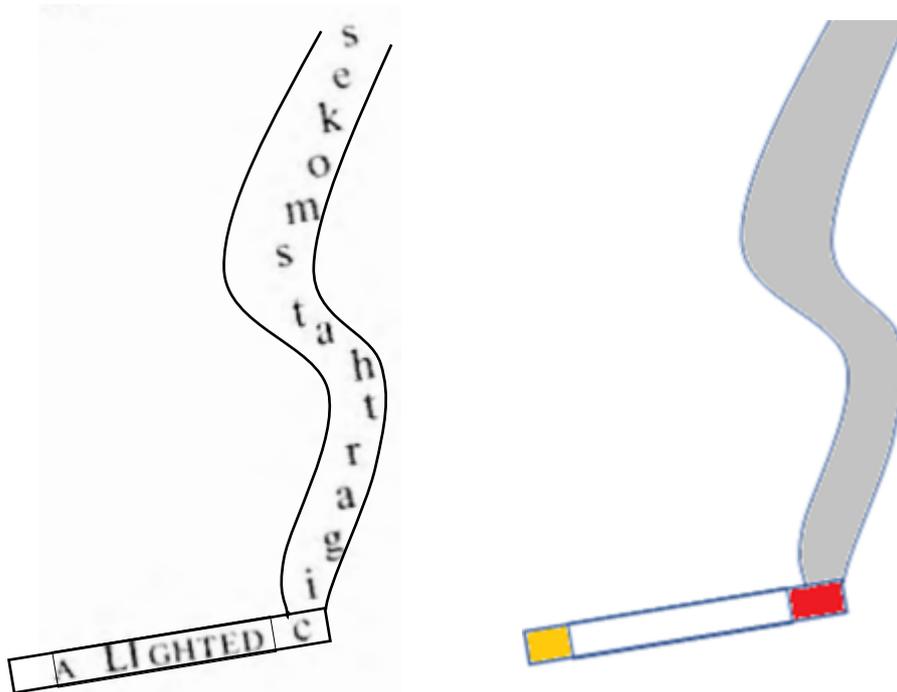
Figure 4.2: Tree Graphic Form in the Poem ‘Paysage’



☞ *Form exhibition # 3:*

The third graphic form situated on the right bottom of the poem shows a shape of a lighted cigarette. The latter provides a sense of visual smoke ascending, yet, similarly to the previous shape it does not seem difficult to read, therefore the Figure below does not have any cryptographic characteristics.

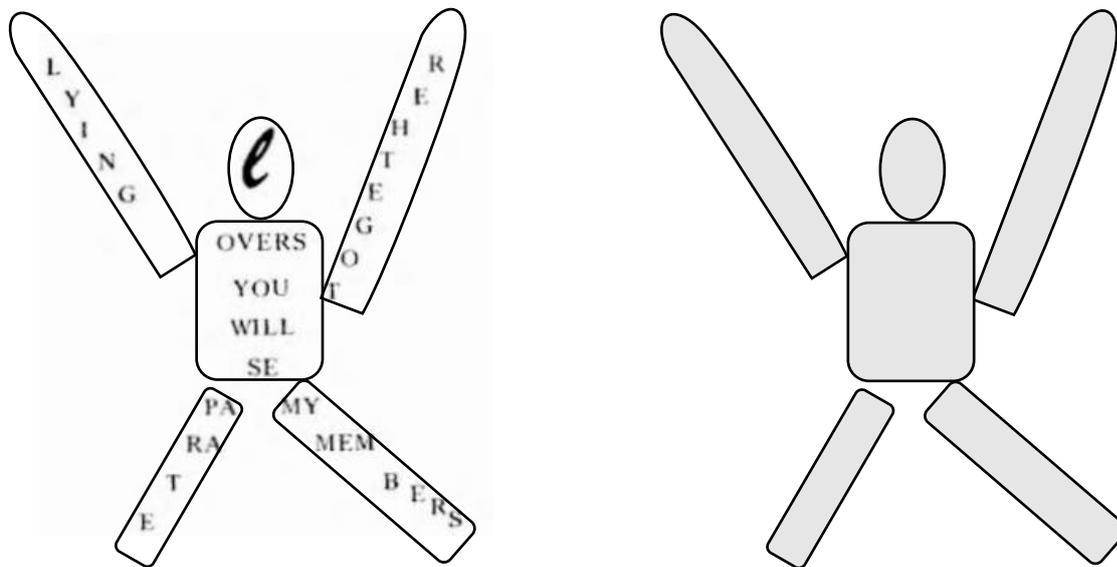
Figure 4.3: Lighted Cigar Graphic Form in the Poem 'Paysage'



☞ *Form exhibition # 4:*

The fourth and the last Figure of the poem is located on the left bottom which resembles the shape of human body Figure. The latter can cause a true hindrance towards the readability of the poem as readers get confused as to where to begin reading. The Figure below can be considered as a graphic text which has cryptographic quality. Hence, readers have to jump from side to side to read it. Apart from that, the Figure of the human body creates another obstacle to readers as they cannot tell whether the human body shape is laying down or standing. As a result, this confusion can be considered as a cryptographic technique, so to speak, anamorphosis.

Figure 4.4: Human Body Graphic Form in the Poem ‘Paysage’



☞ *The Use of punctuation marks and symbols*

It is an incontrovertible fact that the use of punctuation marks and symbols, in any given text, plays a significant role in complementing the meaning of the text. However, the poem ‘Paysage’ (Landscape) has no punctuation marks except for the big question mark situated on the word [MANSION]. The absence of punctuation marks indicates that the whole text within the house graphic form (see Figure 4.1) is a question, therefore, there is no cryptographic features to be mentioned.

☞ *The use of capitalization*

Similar to punctuation, capitalization has its own rules and place in texts. Therefore, its rules are strictly severe, yet, Apollinaire played with the use of capitalization as most of his poem is written in capital letters except for the sentence [cigarthatsmokes]. To this point, the use of capitalization does not prevent readers from reading the poem and does not create any cryptographic peculiarity.

☞ *Substitution of letters and words*

Substitution of letters and words with other symbols or numbers is considered as one of the oldest types of cryptology. However, Apollinaire did not use any special symbols, numbers, or distinct characters.

☞ *The use of foreign/dead languages*

As asserted in previous chapter, Apollinaire's selected poems are originally written in the French language and we are dealing with the translated version to English in our decryption. However, what is meant in this case is the use of foreign or/and dead languages within the poem regardless of the language that the poem was written in. To this end, the poem does not have any words or sentences from either foreign or dead languages. The absence of foreign/dead languages makes the poem easy to read and eventually understood for readers of both languages, namely French and English.

☞ *The use of lining, displacement and spacing*

Lining, displacement and spacing give the poet the privilege to break through the boundaries of writing poetry. These techniques, on one hand, allow him to play with words and sentences, and thus create a visual beauty. On the other hand, they can also create some kind of ambiguity and confusion to readers as they cannot decide where the poem starts and where it ends. In this respect, the house graphic form from exhibition # 01 (see Figure 4.1) is the illustration of the ambiguity and confusion that result from using the technique of lining, displacement and spacing. Hence, the poem '*Paysage*' has cryptographic peculiarity since the cryptographic feature of ambiguity is omnipresent in the poem.

☞ *Words distortion and invention*

To make sure that a given message is encrypted, cryptologists depend on confusing any third party who may intercept the communication by inventing new words that people are not

familiar with (except for the intended recipients of the message) or distort old ones by breaking their morphological building. The poem ‘*Paysage*’ does not possess any new or fabricated words, but it surely does have a morphological distortion. The latter is vividly seen in the graphic forms (house, tree, lighted cigar and human body). The Table below, reveals the words that the poet has distorted.

Table 4. 1: The Morphological Distortion in the Poem ‘*Paysage*’

The Graphic Form	Morphological Distortion
The house graphic form	[H]-[ERE] and [S]-[TA]-[RS]
The tree graphic form	[RE]-[SEM]-[BLES]
The lighted cigar graphic form	[c]-[i]-[g]-[a]-[r], [t]-[h]-[a]-[t] and [s]-[m]-[o]-[k]-[e]-[s]
The human body graphic form	[ℓ]-[O]-[V]-[E]-[R]-[S], [SE]-[PA]-[RA]-[T]-[E] and [MEM]-[B]-[E]-[R]-[S]-

Accordingly, if we take each letter or the combined letters, as they are written by the poet, and try to read them in a linear manner (from left to right) we shall get the following:

H	RE	➤	s	ℓ
ERE	SEM	e		OVERS
S	BLES	k		SE
TA RS		o		PA MY
		m		RA MEM
		s		T B E
		t		E R S
		a		
		h		
		t		
		r		
		a		
		g		
		i		
		c		

Each column, as the above illustration shows, is related to its corresponding graphic form. In this regard, scattered letters and words seem highly unreadable whenever readers try to read it in a linear way. Respectively, when we separate the text of the poem from its visual context, the text seems coded, or rather say enciphered, using a transposition ciphering. At this point, the poet transposed the distorted words according to the visual graphic form. Therefore, the poem ‘*Paysage*’, according to word invention and distortion criterion, has a cryptographic peculiarity.

☞ *Hidden shapes/Figures*

Hiding the message per se instead of encrypting it, is considered as one of the oldest types of cryptology, whereby the cryptologist hides the message in other forms such as texts, images and objects. Nevertheless, although the poem has graphic Figures which resemble visual shapes (a house, a tree, a cigar and a human body) it does not have any hidden shapes or Figures within the visual graphic forms.

B. Cryptographic Peculiarities in ‘*La Cravate et la Montre*’ Poem

Similarly, to the previous poem, the poem ‘*La Cravate et la Montre*’ has its own way in disturbing readers schemata and making them think twice about where to start and what comes next. Therefore, the poem at hand is examined throughout the suggested criteria in order to see whether it possesses cryptographic characteristics or not.

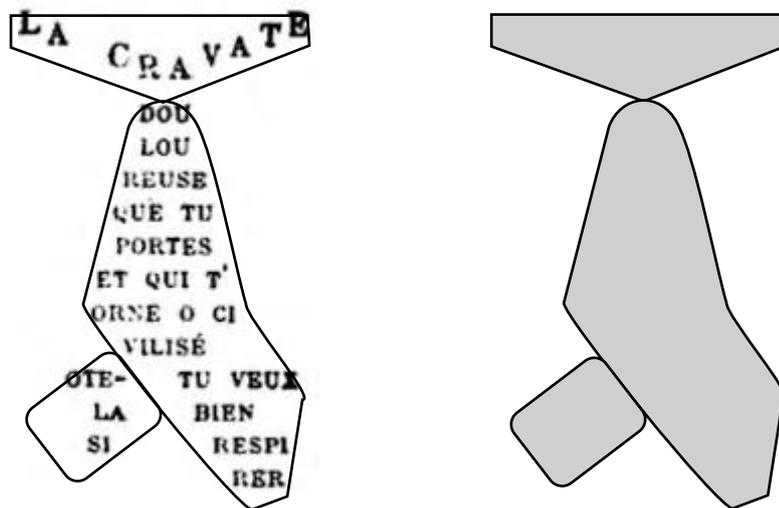
☞ *The form of the poem*

Most readers can tell, from the first sight, that the poem has two graphic forms. The letters are presented in the subsequent exhibitions.

☞ *Form exhibition # 1:*

The first graphic figure which is located on the top right of the poem resembles the shape of a man's tie. The Figure below clarifies the shape of the tie according to the distribution of the words. However, as far as cryptographic peculiarities are concerned, the form in which the shape 'tie' is written does not look too difficult to read. In this case, the first graphic form does not have cryptographic characteristics.

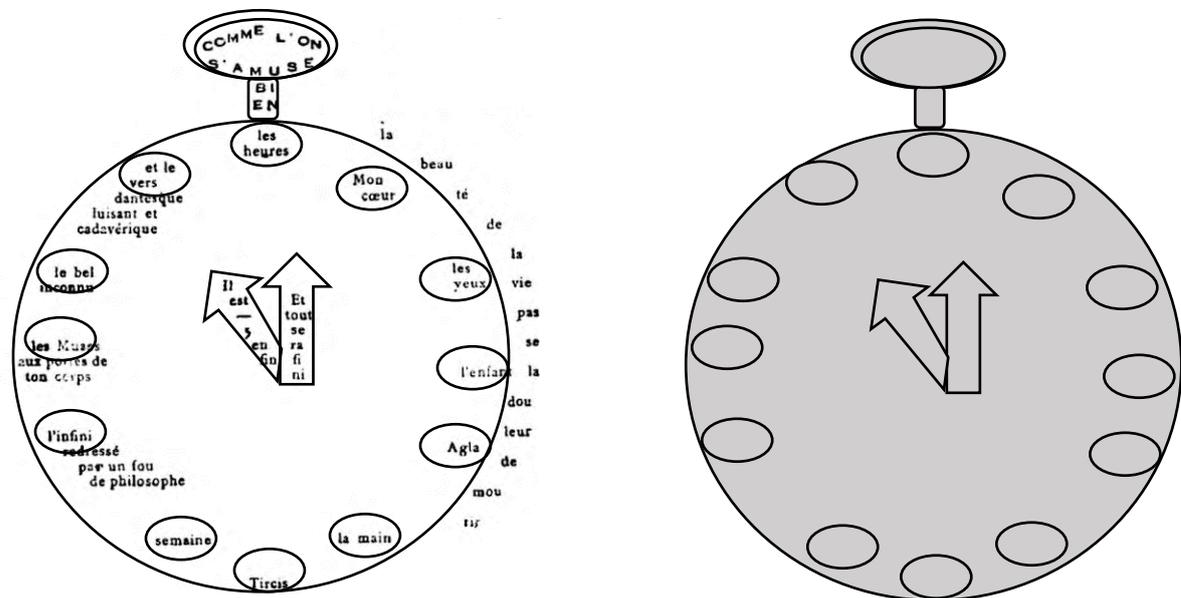
Figure 4.5: The Tie Graphic Form in the Poem 'La Cravate et la Montre'



☞ *Form exhibition # 2:*

The second graphic form is situated in the lower part of the poem, whereby it resembles the shape of a pocket watch. The subsequent Figure provides an illuminating presentation of the intended visual shape

Figure 4.6: The Watch Graphic Form in the Poem 'La Cravate et la Montre'



According to the shape that the lower part of the poem visualizes and as the title of the poem per se implies, reading the second stanza will not be a problem for readers. That is because readers are given hints from the poet in terms of title and visual form of the poem. In this respect:

- The title clearly indicates that the poem is about a pocket watch (regardless the literary connotation that the poet refers to) as the title in each language (French and English) has the word 'la montre' and 'the watch'
- The shape of the watch itself can make the poem easy to read as it is a common knowledge that reading time always starts from right to left.

Therefore, since the poem can easily be read, that is its starting point is clear to readers, we can say that the form of the poem does not have any cryptographic peculiarities.

☞ *The use of punctuation marks and symbols*

Whether in the first stanza ‘The Tie’ or the second one ‘The Watch’, the poem does not possess any punctuation marks. The lack of punctuation marks may cause confusion to readers in ordinary text, but not with the poem at hand. Therefore, according to the use of punctuation criterion, the poem does not have cryptographic traits.

☞ *The use of capitalization*

Conversely to the previous criterion, the use of capitalization in the poem causes no problem for readers to read the poem. Respectively, even though the first stanza is fully capitalized, and the second stanza has some words written in capital letters such as [WHAT A GOOD TIME WE’RE HAVING] and the rest of the stanza is written in lowercase, the poem seems readable.

☞ *Substitution of letters and words*

As asserted in Chapter One, substitution cipher (the replacement of letters/words with other words, numbers or symbols) is considered as one of the oldest types of cryptology. This is vividly seen in the poem ‘*La Cravate et la Montre*’ where the poet substitutes the numbers of hours with puzzling phrases. Consequently, the Table below presents the use of cryptology which is a vivid evidence that the poem possesses cryptographic qualities.

Table 4.2: The Use of Substitution Cipher in ‘*La Cravate et la Montre*’

Ciphertext from the poem	Plaintext of the poem
My heart	1 O’clock
the eyes	2 O’clock
the child	3 O’clock
Agla	4 O’clock

The hand	5 O'clock
Tircis	6 O'clock
Week	7 O'clock
The infinite righted by a mad philosopher	8 O'clock
The Muses at the doors of your body	9 O'clock
The handsome stranger	10 O'clock
And the Dantean verse shining and corpselike	11 O'clock
The hours	12 O'clock

☞ *The use of foreign/dead languages*

The use of foreign languages and especially old/dead languages in encrypting messages can cause a serious problem to readers. In this respect, Apollinaire used some words which push readers to do some serious research, viz *Agla*, *Tircis*, and *Dantean verse*. This technique, gives the poem a confusing and puzzling relish as readers are challenged to interpret the aforementioned words (among the rest of the poem) and to make the link between them and the rest of the poem. Henceforth, the criterion of using foreign/dead languages in '*La Cravate et la Montre*' makes the poem possess cryptographic characteristics.

☞ *The use of lining, displacement and spacing*

The shape in visual/concrete poems governs the use of lining, displacement and spacing of words. Thus, the more complicated the shape is, the more difficult its readability can be. However, the visual shapes in the poem '*La Cravate et la Montre*' does not cause any

hindrances for readers to read the poem. Therefore, according to the current criterion, the poem does not possess cryptologic peculiarities.

☞ *Words distortion and invention*

Even though Apollinaire used some words which are derived from old/dead languages, it does not mean that they are considered as invented ones. The current criterion deals with words that the poet, himself, created or distorted, yet the poem is empty of such words. Therefore, the absence of the criterion of word distortion or/and invention makes the poem lack cryptographic features.

☞ *Hidden shapes/Figures*

Despite the fact that the poem has graphic Figures which resemble visual shapes (a tie and a pocket watch) it does not have any hidden shapes or Figures within the visual graphic forms. As a result, the poem does not have cryptographic peculiarities.

C. The Poem ‘La Mandoline l’Œillet et le Bambou’

In addition to the previous poems, the poem ‘*La Mandoline l’Œillet et le Bambou*’ which translates to (The Mandolin the Carnation and the Bambou) does not make Apollinaire’s poetic style any simpler. In this respect, the current poem is examined in accordance with the aforementioned criteria to see whether it holds cryptographic qualities or not.

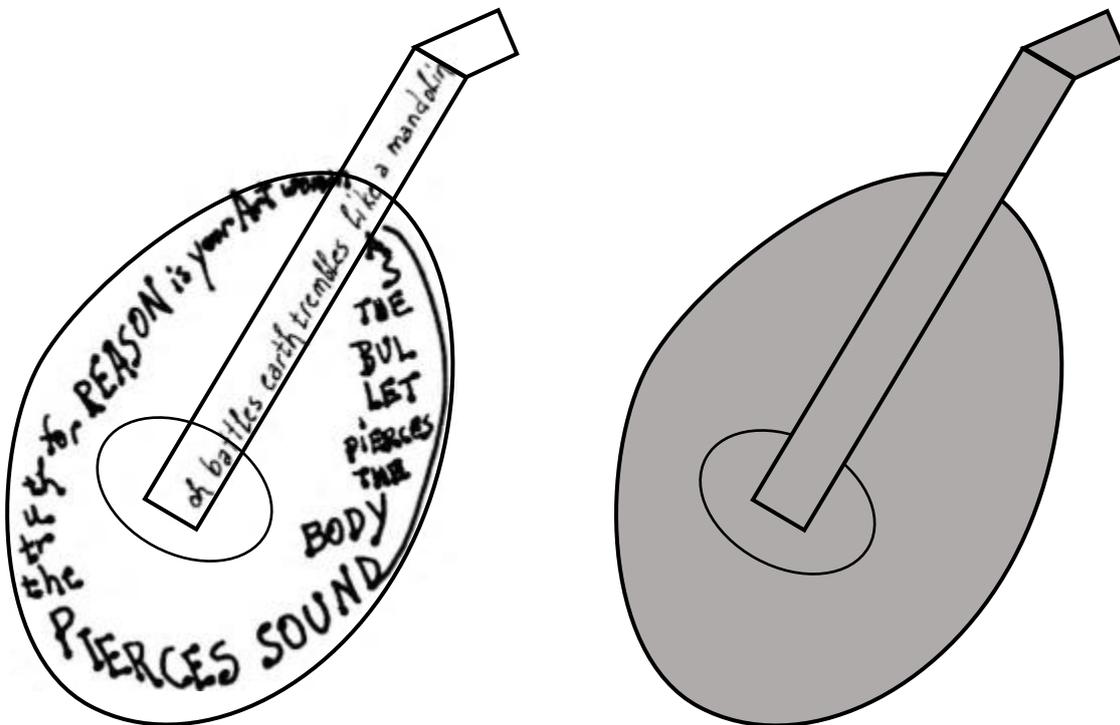
☞ *The form of the poem*

As its title implies the poem has three different graphic forms, namely a musical instrument ‘The Mandolin’, a Dianthus flower species called ‘Carnation’ and a pipe of a ‘Bambou’. Therefore, the aforementioned visual forms are dealt with in the exhibitions below.

☞ *Form exhibition # 1:*

The first graphic Figure, located on the top left of the poem, presents the shape of a musical instrument, that is to say, a mandolin. The Figure below incarnates the graphic form into a visual Figure, yet when it comes to the readability of the text, the visual shape of the mandolin can be a real challenge.

Figure 4.7: Mandolin Graphic Form in the Poem ‘La Mandoline l’Œillet et le Bambou’

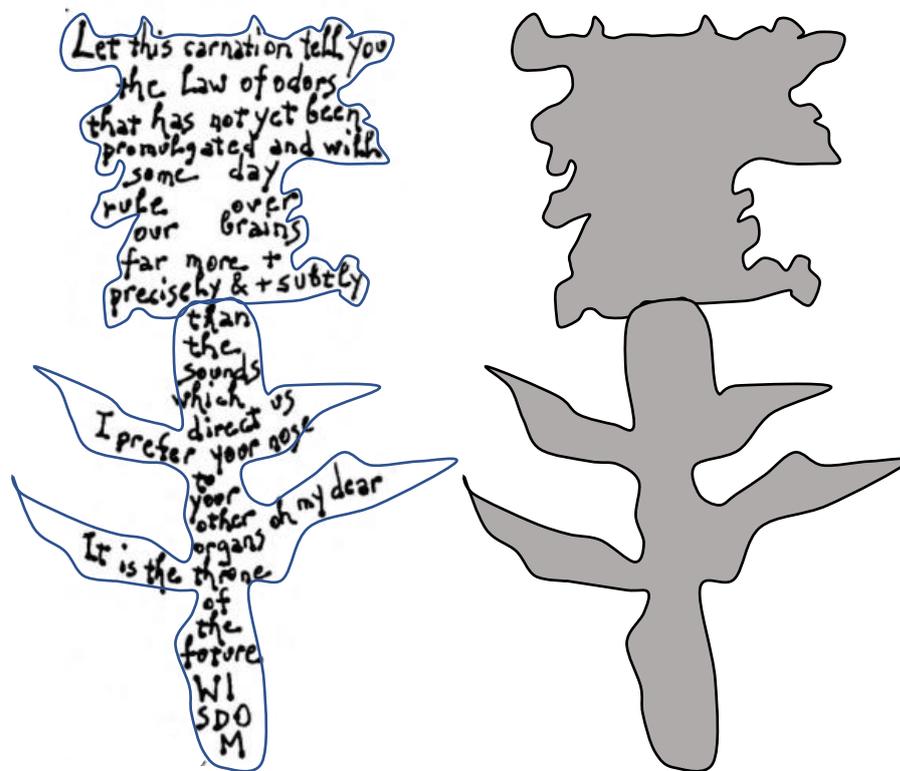


As asserted above, the text in which it is written, viz a shape of a musical instrument, makes it hard on readers to even guess the first line and what comes after it. The way in which the first stanza is written gives the text a circle shape whereby readers find themselves reading in a loop which does not make any sense [AS THE BUL LET piercing the BODY SOUND PIERCING the tr u th for REASON in your Art woman]. Thus, the first stanza provides the poem with a cryptographic trait.

☞ *Form exhibition # 2:*

The second stanza of the poem ‘*La Mandoline l’Eillet et le Bambou*’ is located on the left top of the poem and resembles the shape of a flower species. Therefore, the Figure below exhibits the visual form of the stanza.

Figure 4.8: Carnation Graphic Form in the Poem ‘*La Mandoline l’Eillet et le Bambou*’



The second stanza does not look encrypted and appears to be readable as its text is as follows:

*Let this carnation teach you the law of odors
that has not yet been promulgated and which
some day rule over our brains
much more than precisely subtly than the sounds which direct us*

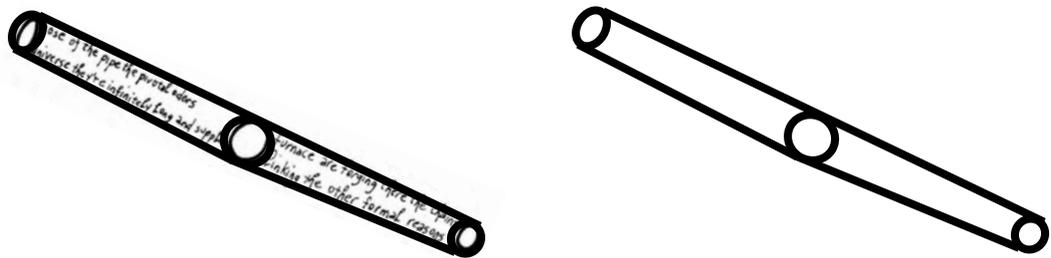
I prefer your nose to your other organs oh my dear

It is the throne of future WISDOM

☞ **Form exhibition # 3:**

The third graphic form is located at the bottom of the aforementioned stanzas (the mandolin and the carnation). It displays Bambou cane which is shown in the subsequent Figure.

Figure 4.9: Bambou Graphic Form in the Poem ‘La Mandoline l’Œillet et le Bambou’



As the graphic form in the Figure above shows, the text of the stanza looks easy to read.

In this case, the text goes as follows:

Oh nose of the pipe odors (center O bowl) forge infinitely tenuous

chains there O (O universe) linking the other formal reasons together

☞ **The use of punctuation marks and symbols**

The poem ‘La Mandoline l’Œillet et le Bambou’ seems to be empty of any punctuation marks. This may be true when it comes to the first and the third stanza (the mandolin and the Bambou). However, the second stanza (the carnation), has two significant symbols such as [&+ and +]. The latter, indicates that Apollinaire has substituted some words with the previously mentioned symbols whereby it is evident that the second stanza has cryptographic quality, so to speak, substitution encipherment.

☞ *The use of capitalization*

The use of capitalization in the first and the second stanza does not seem to prevent readers from reading the poem, or make the poem any ambiguous than it already is. Notwithstanding, in the third stanza, there are three O's written in capital letters. At this case, readers may get confused by those O's as they may be put to represent visual tools used to give the text an imagery from of a Bambou cane (front, middle and back) or they are used as exclamatory interjections. This confusion misleads readers from the true meaning of the stanza and gives the text a cryptographic relish.

☞ *Substitution of letters and words*

As far as this criterion is concerned, the poet substituted symbols [&+ and +] for some words in the second graphic form/stanza. He also replaced the three O's in the third stanza with exclamatory interjections which will be revealed in the next section.

☞ **The use of foreign/dead languages**

The poem '*La Mandoline l'Éillet et le Bambou*' does not have any words from foreign, old or dead languages. Therefore, according to the criterion at hand, the poem does not have cryptographic characteristics.

☞ **The use of lining, displacement and spacing**

From the look of the visual shapes in the poem, the use of lining, displacement and spacing differs from one stanza to another, whereby the predicament of the readability of each stanza is not the same. In this regard, the first stanza seems difficult to read, this is because the text is written in a circled form and because the scrambling of the text makes it even harder. On the other hand, despite the fact that the second and the third stanzas have their own shape, they are easy to read and the use of lining, displacement and spacing of the text does not make them ambiguous or obscured.

☞ *Words distortion and invention*

All the words within the poem seem to be recognized as Apollinaire did not invent nor distort any word. Thus, as far as the current criterion is concerned, the poem does not have any cryptographic peculiarity.

☞ *Hidden shapes/Figures*

Despite the fact that the poem has graphic Figures which resemble visual shapes (The Mandolin the Carnation and the Bambou) it does not have any hidden shapes or Figures within the visual graphic forms. As a result, the poem does not have cryptographic peculiarities.

D. The Poem '*Cœur Couronne et Miroir*'

The last poem of Apollinaire's selected poems entitled '*Cœur Couronne et Miroir*' which translates to (Heart Crown and Mirror) is examined under the suggested criteria in order to see whether the poem has cryptographic traits or not.

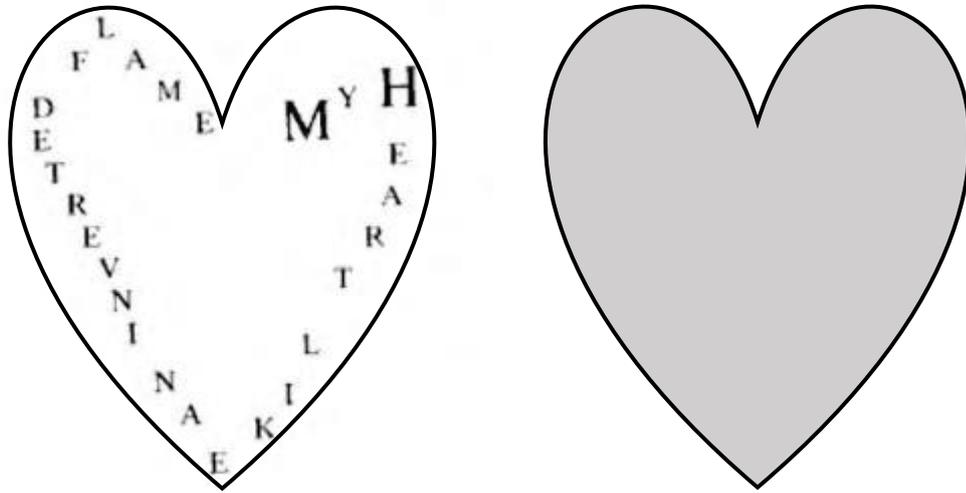
☞ *The form of the poem*

As its title implies, the poem has three graphic Figures, namely a shape of a heart, a crown and a mirror. In this respect, the Figures 4.10 clarify the visual aspect of each graphic shape.

☞ *From exhibition # 1:*

The first graphic Figure resembles a shape of a heart which is situated on the top left of the poem. This is shown in the subsequent Figure.

Figure 4.10: Heart Graphic Form in the poem ‘Cœur Couronne et Miroir’

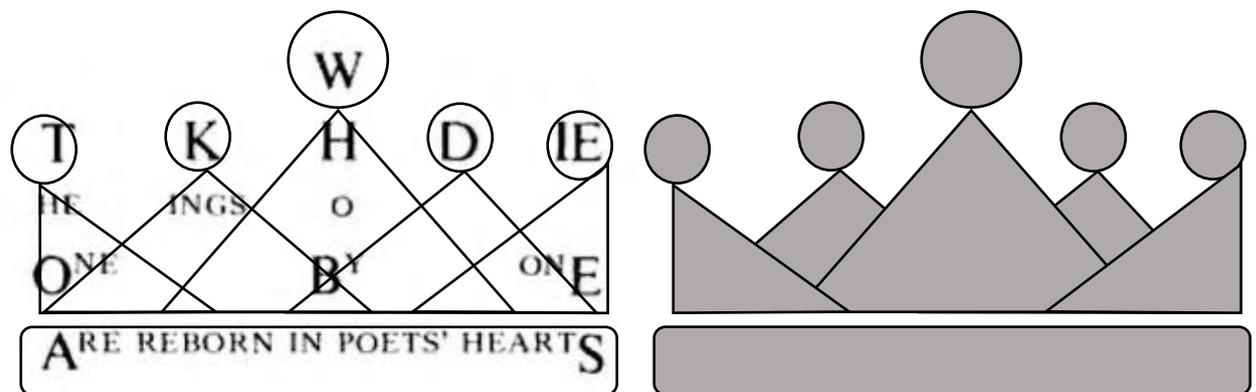


The graphic Figure, as shown in Figure 4.10, may seem difficult to read because of the shape that it resembles. However, if one takes a really good look at the text written, s/he can guess that the starting point of the stanza starts with the bold capital letter of the possessive pronoun ‘My’ and the noun ‘Heart’. Accordingly, we can say that the first stanza, visualized in a shape of a heart, does not have cryptographic peculiarities.

☞ ***From exhibition # 2:***

The second graphic form in the poem ‘Cœur Couronne et Miroir’ (Heart Crown and Mirror) is located on the top right. The stanza is written in a shape of a royal crown, yet this may not seem clear to some readers. Therefore, the Figure below presents the resemblance between the text in the stanza and the visual shape it represents.

Figure 4.11: Crown Graphic Form in the Poem 'Cœur Couronne et Miroir'



At first glance, the stanza above does not seem to resemble the shape of a royal crown yet, after a thorough examination on how words and letters are placed, **Figure 4.11** provides a clear view on the graphic form. For that matter, the way the stanza is written may create some kind of challenge to readers on the level of readability. Such a challenge is due to the fact that words are written in a vertical and horizontal manner. The latter is a technique in the field of cryptology known as *transposition encipherment*, hence the graphic form at hand possesses cryptographic characteristic.

☞ **From exhibition # 3:**

The third graphic form in the poem 'Cœur Couronne et Miroir' (Heart Crown and Mirror) is located on the bottom of the aforementioned stanzas. Even though the stanza is written in an oval shape, it does not mean it resembles a shape of an egg. As the title of the poem implies, the third stanza resembles a shape of a mirror. Therefore, this is shown in the subsequent Figure.

☞ *The use of capitalization*

Unlike punctuation marks, the use of capitalization seems to be all over the poem. The whole poem is written in capital letters. Interestingly, there are some letters which are more capitalized than the rest of the letters/words:

☞ *First stanza:* The capital letter [M] in my and capital letter [H] in heart.

☞ *Second stanza:* different capitalized letters [W] [T] [K] [H] [D] [IE] [O] [B] [E] [A] [S].

☞ *Third stanza:* all letters look equal in capitalization except for the poet's name [Guillaume Apollinaire] in which the use of capitalization lies in the initials of his name.

In pertaining to cryptographic characteristics, we can say that the bold capitalized letters in the first and second stanzas urge readers to ask the question why are these letters bold and bigger than the others? Therefore, we can say that the use of capitalization in the poem 'Cœur Couronne et Miroir' (Heart Crown and Mirror) reveals cryptographic characteristics.

☞ *Substitution of letters and words*

The poem at hand does not seem encoded in terms of letters/words substitution. Therefore, the poem does not hold any enciphered items and hence does not have cryptographic features.

☞ *The use of foreign/dead languages*

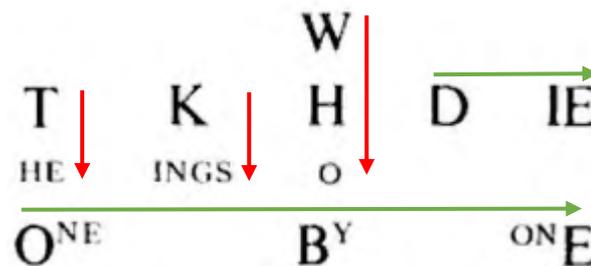
Similarly to the previous criterion, the poem 'Cœur Couronne et Miroir' (Heart Crown and Mirror) does not have any words from foreign, old or dead languages. Therefore, according to this criterion, the poem does not have cryptographic characteristics.

☞ *The use of lining, displacement and spacing*

By looking at the visual shapes in the poem, the use of lining, displacement and spacing differs from one stanza to another whereby the predicament of the readability of each stanza is

not the same. In this regard, when it comes to the use of lining, the second stanza seems difficult to read as the poet wrote it in a vertical and horizontal way as illustrated in the Figure below:

Figure 4 13: The Use of Lining, Displacement and Spacing in the Poem ‘Cœur Couronne et Miroir’



As far as the use of spacing is concerned, the stanza above possesses an unorthodox use of spacing specially in the word 'die' which is written [D IE] or in 'one by one' which written [ONE BY ONE]. In this respect, the use of lining, displacement and spacing as shown in the second stanza gives the poem a cryptographic trait.

☞ *Words distortion and invention*

In order for the poet to create the graphic form, or rather say the visual form, he desires in his poem, he is obliged to deconstruct, split or distort some words. For this reason, readers are encountered with words such as in:

☞ Second stanza (Crown): TKHDIE and INGS

☞ Third stanza (Mirror): MIR, ROR, EN, VING, MA, GI, NE, FLEC

These distorted 'words' are not recognized in the dictionary of English (translated version of the poem) which make readers think twice and read the poem many times so that they can get the idea or the meaning of the words. Thus, due to the fact that visual shapes provide the poem with words that seem new, we can say that word distortion and invention criterion provides the poem 'Cœur Couronne et Miroir' (Heart Crown and Mirror) with cryptographic peculiarities.

☞ *Hidden shapes/Figures*

Despite the fact that the poem has graphic Figures which resemble visual shapes (Heart, Crown and Mirror) it does not have any hidden shapes or Figures within the visual graphic forms. As a result, the poem does not have cryptographic features.

2. Decrypting Cryptographic Peculiarities in Apollinaire's Selected Poems

After a thorough examination of Apollinaire's selected poems, it appears that his poems do hold some cryptographic traits. The latter can cause a real challenge to readers in reading and interpreting the selected poems. In this respect, and in order to decrypt the encrypted stanzas, the researcher has adopted a cryptanalysis approach. This is done for two reasons: (i) The researcher does not have the key of decryption and (ii) The researcher does not know whether the cryptographic characteristics that Apollinaire used in his poem are intentional or not.

Accordingly, the following section deals with decrypting, only, the stanzas that cause real challenges to readers and which actually possess cryptographic characteristics. In this regard, the researcher processes this part as follows: (i) presents the ciphertext (the encrypted text), (ii) identifies the type of encryption, (iii) explains the decryption process, and (iv) provides the cleartext (the readable from of the stanzas).

A. Decrypting the Poem 'Paysage'

The first poem in Apollinaire's selected poems possesses some cryptographic peculiarities in relation to two different criteria namely the form of the poem and words distortion and invention. In this respect, the Table below deals with the decryption of the stanzas in the poem '*Paysage*'.

	PA MEM RA B T E E R S	Encipherment and displacement	deletion of space within words.	Separate members
--	---	-------------------------------------	------------------------------------	---------------------

In terms of form, as it is shown in the Table above, the decryption of the first stanza starts with the auxiliary verb 'Is' whereby the starting point of the ciphertext is demonstrated with a green arrow . Accordingly, the direction of the arrow indicates the path that readers have to follow in order to be able to read the first stanza. The fourth stanza, on the other hand, has its own cryptographic peculiarity which is different from the aforementioned one, so to speak, *anamorphosis*. The graphic form/the visual pattern confuse readers as they cannot tell whether the human body in the last stanza is standing with arms outstretched or lying on the ground spread-eagled.

The decryption process of the fourth stanza, as indicated in **Table 4.3** shows that the starting point of the encrypted text begins with the letter 'ℓ' which is demonstrated with an arrow . The latter is followed by blue arrows leading readers step by step throughout the stanza, this will help readers to read the poem easily.

In pertaining to other criteria, all the four stanzas share a cryptographic characteristic, viz morphological deconstruction encipherment. The Table below illustrates the morphological deconstruction that the poet used in the poem '*Paysage*', and the morphological reconstruction of the text which is considered as a decoding process which makes what was once unreadable readable.

Table 4. 4: The Poem ‘*Paysage*’ before and after Decryption

Morphological Deconstruction Encipherment (Unreadable Text)	Morphological Construction Decryption (Readable Text)
[H]-[ERE]	HERE
[S]-[TA]-[RS]	STARS
[RE]-[SEM]-[BLES]	RESEMBLES
[c]-[i]-[g]-[a]-[r] [t]-[h]-[a]-[t] [s]-[m]-[o]-[k]-[e]-[s]	cigar that smokes
[ℓ] [O]-[V]-[E]-[R]-[S] [SE]-[PA]-[RA]-[T]-[E] [MEM]-[B]-[E]-[R]-[S]-	LOVERS SEPARATE MEMBERS

After a thorough examination of the poem ‘*Paysage*’ whereby the researcher has extracted and decrypted the stanzas that possess cryptographic traits, the poem becomes more readable and accessible. Consider the following:

Is here the mansion where the
starts and the divinities are born?

This little tree beginning to
bear fruit resembles you’

A lighted cigar
that smokes

Lovers lying together you
will separate my members

B. Decrypting the Poem ‘*La Cravate et la Montre*’

The second poem in Apollinaire’s selected poems has its own encrypted text. Interestingly, the current poem can be considered as a vivid example of the use of cryptology in poetry. In this respect, what Apollinaire did in the second stanza (which take the shape of the watch) is purely cryptology whereby he replaced the hours with different words and phrases. This technique of replacing one word with another word, number, or a symbol is called substitution encipherment. Consequently, the Table below demonstrates the decryption process of the encrypted stanza.

Table 4.5: The Decryption of the 1st and the 4th stanzas in ‘*La Cravate et la Montre*’

	Ciphertext	Type of Encryption	Decryption Process	Cleartext
	My heart	Substitution cipher		1 O’clock
	the eyes	Substitution cipher		2 O’clock
	the child	Substitution cipher		3 O’clock
	Agla	Substitution cipher		4 O’clock
	The hand	Substitution cipher		5 O’clock
	Titcis	Substitution cipher		6 O’clock
	Week	Substitution cipher	Days of the week	7 O’clock

Stanza # 2	The infinite righted by a mad philosopher	Substitution cipher		8 O'clock
	The Muses at the doors of your body	Substitution cipher		9 O'clock
	The handsome stranger	Substitution cipher	X	10 O'clock
	And the Dantean verse shining and corpselike	Substitution cipher	Nel mezzo del cammin di nostra vita	11 O'clock
	The hours	Substitution cipher		12 O'clock

As it is shown in the Table above, Apollinaire has used enigmatic words/phrases to represent the hours. To this point, the relevance made between these puns and the hours is as follows:

Table 4.6: Decrypting Enigmatic Words/Phrases of the Second Stanza (The Watch)

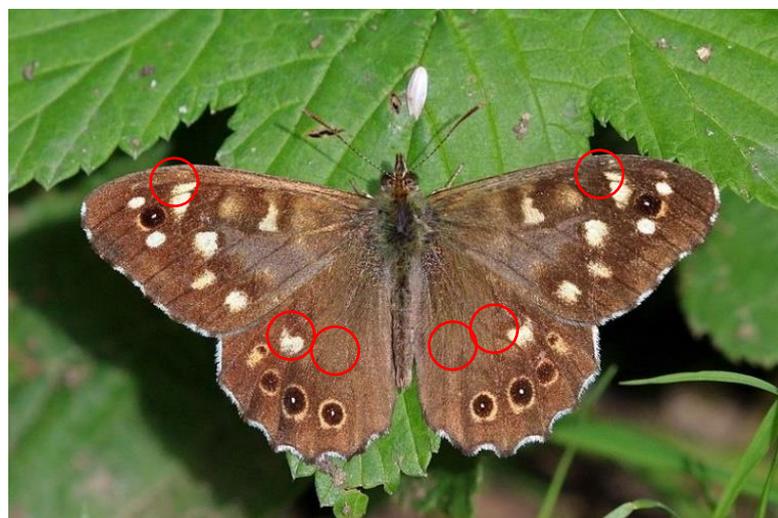
Ciphertext	Cleartext	
My heart	There is only one heart	1 O'clock
the eyes	There two eyes	2 O'clock
the child	The third after the parents	3 O'clock
Agla	An acronym of four words <i>'Atah Gibor Le-olam Adonai'</i>	4 O'clock
The hand	Five fingers	5 O'clock
Tircis	Speckled Wood Butterfly which has six significant dots on its wings	6 O'clock

Week	Seven days	7 O'clock
The infinite righted by a mad philosopher	The infinity ∞ symbol stood upright	8 O'clock
The Muses at the doors of your body	The nine muses: Calliope, Clio, Erato, Euterpe, Melpomene, Polyhymnia, Terpsichore, Thalia, Urania,	9 O'clock
The handsome stranger	X refers to number ten in Roman numbers	10 O'clock
And the Dantean verse shining and corpselike	The verse has eleven -syllable line	11 O'clock
The hours	Twelve hours	12 O'clock

Based on the elucidation above, some of the puns from the watch graphic Figure make sense such as heart refers to number one, eyes to number two, hand for five, and week for seven. However, other enigmatic words/phrases such as Agla, Tircis and Dantean verse can be thought-provoking as their substitutional reference with the hours does not make sense. Therefore, for a better understanding, the word Agla, is a Hebrew word used for magical protection, which is a kind of a prayer that has four words Atah^{1st} Gibor^{2nd} Le-olam^{3rd} Adonai^{4th}.

On the other hand, the enigmatic word Tircis refer to the speckled wood butterfly which has six dots on its wings. Let us Consider Figure 4.14:

Figure 4. 14: Speckled Wood Butterfly (Pararge Aegeria Tircis)



Note: Reprinted from Sharp, (2016). Retrived February 02nd, 2020. From [https://commons.wikimedia.org/wiki/File:Speckled_wood_butterfly_\(Pararge_aegeria_tircis\)_male_2.jpg](https://commons.wikimedia.org/wiki/File:Speckled_wood_butterfly_(Pararge_aegeria_tircis)_male_2.jpg)

Concerning the phrase ‘*And the Dantean verse shining and corpselike*’, Apollinaire has adapted the first line from Dante Alighieri’s (1308) poem ‘*Divina Commedia*’ [di'vi:na kom'mɛ:dʒa] which translate to (The Divine Comedy). The relevancy between this poem and the hour 11h is the number of syllables that the lines of the poem have. Consequently, the first line of Dante’s poem ‘*Inferno Canto 1*’ has eleven syllables whereby each vowel corresponds to a syllable:

☞ Nel mezzo del cammin di nostra vita

☞ /nɛl 'mɛ.zo dɛl kam.min di 'nɔs.trə 'vi.tə/

With that being dealt with, and after extracting and decrypting some cryptographic peculiarities found in the poem ‘*La Cravate et la Montre*’ reading the poem does not seem to be an issue as the first stanza (the tie) is read as follows:

The tie so sorrowful that you wear

And that adorns you oh civilized

take it off if you wish to breathe well

Conversely, the second stanza (the watch) can be read in a clockwise whereby it goes as follows:

WHAT A GOOD TIME WE ARE HAVING

The beauty of life surpasses the sorrow of dying

the hours

My heart

the eyes

the child

Agla

The hand

Tircis

Week

The infinite righted by a mad philosopher

The Muses at the doors of your body

The handsome stranger

And the Dantean verse shining and corpselike

It's 5 at last and all will end

C. Decrypting the Poem '*La Mandoline l'Œillet et le Bambou*'

The third poem of Apollinaire's selected poems has some encrypted passages of its own. In this respect, the poem has cryptographic traits in multiple criteria, viz the form, the use of punctuation, capitalization and the use of lining, displacement and spacing. Accordingly, the subsequent Table illuminates the decryption process.

Table 4.7: Decrypting the Poem '*La Mandoline l'Œillet et le Bambou*'

	Ciphertext	Type of Encryption	Decryption Process	Cleartext
Stanza # 01		Scrambling / disordering verses		oh battles earth trembles like a mandolin AS THE BULLET PIERCES THE BODY SOUND PIERCES truth for REASON is your Art Woman
Stanza # 03		Rebus	the three O's draw the knots of the wood as well as 3 smoke rings.	1 st O = Oh 2 nd O = bowl 3 rd O = O universe

Table 4.7 clarifies the readability of the first stanza (the Mandolin graphic form) thereby directing readers by indicating the starting point of the stanza which is directed by a green arrow. In this regard, the logical starting point which gives the stanza a significant meaning is to start reading the text from the fingerboard of the mandolin, then keep reading in a clockwise direction.

The third stanza (the Bambou graphic form) on the other hand, has its own ambiguous peculiarity as the three capitalized O's are used to draw the knots of the wood as well as smoke rings.

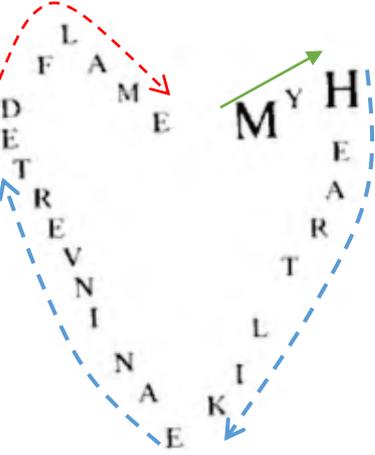
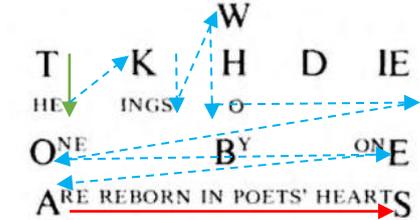
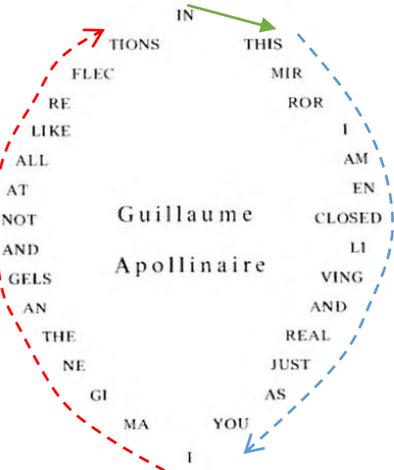
As far as the capability of reading the poem is concerned, the second and the third stanzas do not create any hindrances for readers, except for the fact that the former is read in a vertical way and the latter in a horizontal manner. To this end, the poem '*La Mandoline l'Éillet et le Bambou*' is read as follows:

Oh battles earth trembles like a mandolin
 AS THE BULLET PIERCES THE BODY
 SOUND PIERCES truth for REASON is your Art Woman
 Let this carnation teach you the law of odors
 that has not yet been promulgated and which
 someday rule over our brains
 much more than precisely subtly than the sounds which direct us
 I prefer your nose to your other organs oh my dear
 It is the throne of future WISDOM
 Oh nose of the pipe odors (center O bowl) forge infinitely tenuous
 chains there O (O universe) linking the other fromal reasons together

D. Decrypting the Poem 'Cœur Couronne et Miroir'

The last poem of Apollinaire's selected poems, similarly to previous poems, has some cryptographic characteristics, especially the second stanza (The crown) which is considered as the most difficult stanza in the poem. Therefore, the Table below presents the decryption process of the coded passages.

Table 4.8: Decrypting the Poem ‘Cœur Couronne et Miroir’

Ciphertext	Type of Encryption	Decryption Process	Cleartext
	Lack of punctuation marks		MY HEART LIKE AN INVERTED FLAME
<p>W T K H D IE HE INGS O ONE BY ONE ARE REBORN IN POETS' HEARTS</p>	Transposition Encipherment		THE KINGS WHO DIE ONE BY ONE ARE REBORN IN POETS' HEARTS
<p>IN TIONS THIS FLEC MIR RE ROR I LIKE I ALL AM AT EN NOT Guillaume CLOSED AND LI GELS Apollinaire VING AN AND THE REAL NE JUST GI AS MA YOU I</p>	Morphological Deconstruction Encipherment and spacing		IN THIS MIRROR I AM ENCLOSED LIVING AND REAL JUST AS YOU IMAGINE THE ANGLES AND NOT ALL

			LIKE REFLECTIONS
--	--	--	---------------------

According to the decryption process, as shown in **Table 4.7**, Apollinaire did not use any punctuation mark, and since the stanza is written in the shape of a heart, readers cannot tell the starting point. However, the poet left a clue which indicates the starting point of the poem, viz the bold capital letter **M** for the pronoun *my*. According to the rules of capitalization (whether in French or in English) the beginning of a sentence or a title is always capitalized. Therefore, the first stanza is read as follows: MY HEART LIKE AN INVERTED FLAME.

The second stanza, on the other hand, is more complicated than the previous one as it has a transposition cipher, morphological deconstruction encipherment and spacings. As it is shown in **Table 4.7** the starting point is indicated with a green arrow, here, readers have to read the stanza in a zig zag direction starting with a vertical reading and ending with a horizontal one.

The last stanza, in contrast to the second one, does not seem too encrypted to read, except for the fact that its visual shape may confuse reader to tell where the stanza starts and where it ends. In this regard, the encryption process shows that the stanza should be read in a clockwise direction starting with *IN* and ending with *REFLECTIONS*. Thus, the poem '*Cœur Couronne et Miroir*' is fully read as follows:

MY HEART LIKE AN INVERTED FLAME

THE KINGS WHO DIE ONE BY ONE ARE REBORN IN POETS' HEARTS

IN THIS MIRROR I AM ENCLOSED LIVING AND REAL JUST AS YOU IMAGINE

THE ANGLES AND NOT ALL LIKE REFLECTIONS

3. Cryptographic Peculiarities in Cumming's Selected Poems

Similarly, Cummings' selected poems are subjected to the same set of criteria that Apollinaire's selected poems were subjected to in order to depict cryptographic peculiarities.

A. Cryptographic Peculiarities in '1(a' Poem

The first poem in Cummings' selected poems entitled '1(a' is considered as one of the most difficult poems to read. As far as its title is concerned, readers find difficulties in terms of pronouncing the title, and this leave them with a couple of options: is it pronounced la? Or number one, open parentheses a? This, shows that the title of the poem per se has a cryptographic trait which seems as a coded message.

☞ *The Form of the Poem*

The way in which Cummings wrote the poem appears to be so puzzling as he deconstructs it into short meaningless parts. The form that the poem is written in, which is a vertical way, gives a cryptographic relish.

☞ *The use of punctuation marks and symbols*

The poem has two punctuation marks, viz an open parenthesis found on the first line 1(a and a closed parenthesis found on the sixth line s). As asserted earlier, the use of the parenthesis in a separate way gives the poem a cryptographic characteristic.

☞ *The use of capitalization*

The poem does not have any capitalized letters which makes it difficult to say which line is the beginning of the poem. However, the lack of the use of capitalization does not indicates any cryptographic qualities for the poem.

☞ *Substitution of letters and words*

So far, it is hard to say whether Cummings has substituted words/letters in the poem or not since the poem is still not readable.

☞ *The use of foreign/dead languages*

The poem 'l(a)' does not include any foreign language or a dead one for that matter. Thus, according to this criterion, the poem does not have cryptographic peculiarities.

☞ *The use of lining, displacement and spacing*

The use of lining, displacement and spacing is what gives the poem the shape it has. So, according to this criterion, the poem has a cryptographic quality.

☞ *Words distortion and invention*

What makes the poem so difficult to read is because Cummings deconstructed the poem into small segments. However, the resulting segments are not linguistically recognized segments (such as phones, phonemes, syllables, morphemes and so on). Indeed, by creating his own segments, namely *-le-*, *-af-*, *-ll-* and so forth, Cummings made the poem even more encrypted and difficult to read.

☞ *Hidden shapes/figures*

As far as this criterion is concerned, the poem does not have any hidden shape or figure. Therefore, there is no cryptographic peculiarity to be mentioned

A. *Cryptographic Peculiarities in the Poem 'SNOW'*

The second poem in Cummings' selected poem appears to be one big poetic riddle as it has so many cryptographic characteristics in terms of the following criteria:

☞ *The form of the poem*

On the first sight, the words on the poem seem to be scattered, which give the poem the effect of randomness. The latter, causes a serious challenge as readers cannot keep track of how the poem should be read.

☞ *The use of punctuation marks and symbols*

Cummings has used different punctuation marks such as a parenthesis in (**endbegi** **ndesignb ecend**), hyphens as in **-ing-**, an exclamation mark as in **of!**, a question mark as in **s)h?** and an ampersand as in **y&a**. Punctuation marks are supposed to add clarity to the text, yet the way Cummings used them make the text even more obscured. Therefore, according to the current criterion, the poem seems to have a cryptographic relish.

☞ *The use of capitalization*

The use or the lack of capitalization, generally, does not affect the meaning of the text, unless it is used in an unorthodox way. The latter gives the text a cryptographic quality as it is vividly seen in the poem 'SNOW' in lines 13 and 29:

☞ Line 13: **ofC** omego

☞ Line 2: **ArE**

☞ *Substitution of letters and words*

According to the current criterion, Cummings did not substitute words for other words or letters. Therefore, there are no cryptographic peculiarities to be mentioned.

☞ *The use of foreign/dead languages*

Similarly to the previous criterion, there is no use of foreign or dead languages. Thus, according to that criterion, the poem lacks cryptographic features.

☞ *The use of lining, displacement and spacing*

The form in which the poem was written has no effect on readers as the poem looks like a free verse poem. Therefore, the poem at hand, according to the current criterion, does not possess cryptographic peculiarities.

☞ *The use of punctuation marks and symbols*

The poem 'ygUDuh' does not possess any punctuation mark. This makes reading the poem more difficult than it really is. However, the lack of punctuation marks does not provide the poem with cryptographic peculiarities.

☞ *The use of capitalization*

There are few words which are capitalized in the poem, yet their capitalization violates the grammatical norms of capitalization. Interestingly, this is seen in the following lines as they give the poem a sense of encryption.

☞ The title: ygUDuh

☞ 3rd stanza: LISN bud LISN

☞ 6th stanza: duhSIVILEYEzum

☞ *Substitution of letters and words*

It is hard to say whether Cummings has substituted any words with other words, phrases or symbols since we have not reached the decrypting process yet. Therefore, there is no cryptographic quality to be mentioned.

☞ *The use of foreign/dead languages*

Given that the readability of the poem can be considered as an abstruse and a recondite problem and since the words that Cummings used do not sound familiar to readers, readers may believe that the poem is written in a different language or even a dead language. Therefore, the language used in the poem gives it a cryptographic trait.

☞ *The use of lines, displacement and spacing*

As far as this criterion is concerned, the use of lining and displacement do not seem to create any problem for readers in terms of categorizing the text as a poetic genre. However, the use of spacing or the lack of it gives the poem a cryptographic characteristic as shown in the last line duhSIVILEYEzum.

☞ *Words distortion and invention*

The fact that the language used in the poem is not yet clear, makes it difficult to decide whether Cummings has distorted or invented new words. Therefore, there is no cryptographic peculiarity to be mentioned yet.

☞ *Hidden shapes/Figures*

As far as this criterion is concerned, the poem does not have any hidden shape or Figure. Therefore, there is no cryptographic peculiarity to be mentioned

C. Cryptographic Peculiarities in ‘*r-p-o-p-h-e-s-s-a-g-r*’ Poem

The penultimate poem in Cummings’ selected poems does not make reading Cummings’ poems any easier as it is loaded with cryptographic peculiarities. In this context, the poem is examined throughout the following criteria.

☞ *The form of the poem*

Based on the way the poem is written and the format that it resembles, readers fail to recognize it as a poem. Therefore, according to the form of the poem, we can say that it has a cryptographic quality.

☞ *The use of punctuation marks and symbols*

What makes the poem hard to read is the unorthodox use of punctuation marks that Cummings used. The latter created his own rules of punctuation which violate every rule which readers are familiar with.

☞ *The use of capitalization*

Disfiguring language through the unusual use of capitalization is considered as one of Cummings' unique style. This is vividly seen in 'PPEGORHRASS' and 'gRrEaPsPhOs'. This unorthodox use of capitalization gives the poem cryptographic peculiarities.

☞ *Substitution of letters and words*

According to the current criterion, Cummings did not substitute words for other words or letters. Therefore, there are no cryptographic peculiarities to be mentioned.

☞ *The use of foreign/dead languages*

Similarly to previous criterion, there is no cryptographic quality as there is no use of foreign or dead languages.

☞ *The use of lining, displacement and spacing*

The criterion at hand gives the poem a sense of bewilderment. The latter can be seen in the shape in which the poem is written which makes the poem nearly impossible to be read, where the poet did not respect the use of lining of writing a poem. As far as spacing is concerned, it also contributes in making the poem obscure and enigmatic. In this respect, the word leap is deconstructed due to the fact of the unconventional use of spacing which is illustrated below:

:l
eA
!p:

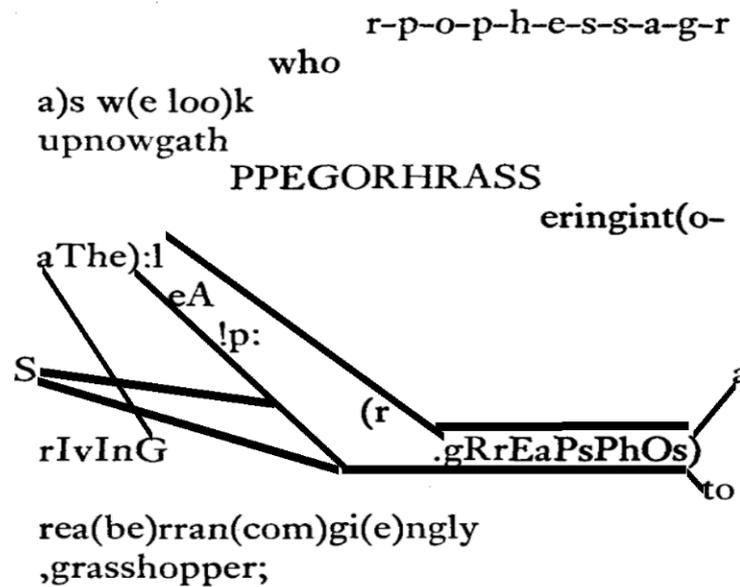
☞ *Words distortion and invention*

Cummings unique style in writing poetry enabled him to create his own words which make sense only inside the poem per se. The fact that Cummings distorted the language used in the poem makes some words appear to be invented ones, viz: *upnowgath*, *PPEGORHRASS*, *Eringint*, *rIvInG* and *gRrEaPsPhOs*. The aforementioned words give the poem a cryptographic relish.

☞ *Hidden shapes/Figures*

Based on the graphic form the poem has, it seems that words, letters and some punctuation marks are scattered at random. However, Cummings wrote the poem in a calculated manner. This means that every word, letter or a punctuation mark is where it is supposed to be. If we take a close look at how they are arranged inside the poem, we will see a visual Figure which resembles an insect, namely a grasshopper. This technique is called steganography in the field of cryptology.

Figure 4.1: Stenography in the Poem 'r-p-o-p-h-e-s-s-a-g-r'



D. Cryptographic Peculiarities in ‘the sky was’ Poem

Conversely to the aforementioned selected poems, the poem ‘the sky was’ seems to be the easiest one in terms of reading. Therefore, the abovementioned criteria which determine whether a selected poem has cryptographic traits or not do not apply on the current poem. This is because readers found reading it effortless compared to other selected poems.

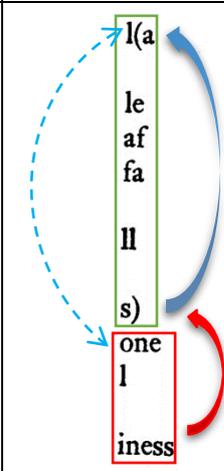
4. Decrypting Cryptographic Peculiarities in Cummings’ Selected Poems

After a thorough examination of Cummings’ selected poems, it appears that his poems do hold some cryptographic traits except for the last one entitled ‘the sky was’. However, the poem that includes encrypted stanzas or lines can cause a real challenge to readers in terms of readability and interpretation of the poems. In this respect, the same approach is adopted in order to decrypt the encrypted texts, namely cryptanalysis.

A. Decrypting Cryptographic Peculiarities in the Poem ‘1(A)’

As asserted earlier, the poem ‘1(a)’ has a cryptographic peculiarity which illustrated in the Table below:

Table 4.9: The Decryption Process of the Poem ‘1(a)’

Ciphertext	Type of encryption	Decryption process	Cleartext
l(a le af fa ll s) one l iness	Transposition encipherment, Morphological deconstruction And tmesis		l(a leaf falls)oneliness

Despite the fact that the poem ‘l(a’ seems to be difficult to read, **Table 4.9** shows that with a simple decrypting process the poem can be readable. As a matter of fact, indicating the type of encryption (transposition encipherment, morphological deconstruction and tmesis) facilitate the decryption process. Therefore, the first step to take is to reassemble the segments that are inside the parentheses by respecting the space between them, and by doing that it should look like: **(a leaf falls)**. After that, we carry on by reconstructing the segments that are outside the parentheses in order to obtain the word *loneliness*.

After decrypting the transposition and the morphological deconstruction ciphers, the poem could be read in a horizontal direction, so instead of reading the poem from top to bottom (as it is originally written by the poet) we should read it from left to right **l(a leaf falls)oneliness**. To this end, the only part that makes sense is the part that is inside the parenthesis, yet the outside part which normally should be *loneliness* is interrupted by the parentheses. The latter,

is a technique in writing called tmesis which is known as “the separation of the parts of a word by the insertion of another word or words.” (Cuddon, 1999, p. 920)

B. Decrypting Cryptographic Peculiarities in the Poem ‘SNOW’

As mentioned in the previous section, the poem at hand is loaded with cryptographic peculiarities. In this respect, the Table below elucidates the decrypting process of the encrypted parts of the poem.

Table 4.10: Decrypting the Poem ‘SNOW’

Ciphertext	Type of Encryption	Decrypting Process	Cleartext
<p>SNOW</p> <p>cru is ingw Hi sperf ul lydesc</p> <p>BYS FLUTTERFULLY IF</p> <p>(endbegi ndesginb ecend)tang lesp ang le s ofC omeg o</p> <p>CRINGE WITHS</p> <p>lilt(-ing- lyful of)! (s r</p> <p>BIRDS BECAUSE AGAINS</p> <p>emarkable s)h? y & a (from n o(into whe)re f ind) nd ArE</p> <p>GLIB SCARCELYEST AMONGS FLOWERING</p>	<p>Morphological deconstruction and Scrambling words</p>	<p>Reconstruct the morphological deconstructed words and reorder the scrambled words and sentences</p>	<p>SNOW</p> <p>Cruising whisper fully descended</p> <p>FLUTTERING FULLY</p> <p>BY</p> <p>IF endings and beginnings, by design, become entangled</p> <p>The spangles of come and go do cringe</p> <p>Within its liltingly full branches</p> <p>Birds chirp because, again, The remarkably shy come from nowhere</p>

			And argue scarcely amongst the flowers
--	--	--	---

A. *Decrypting Cryptographic Peculiarity in the Poem ‘ygUDuh’*

Some of Cummings’ poems are meant to be heard and not read, thus the poem ‘ygUDuh’ is no exception. The only way to decipher this poem and make it readable is to read it out loud. However, even so, still it is hard to pronounce the word **ygUDuh**. At this point, the researcher relies on the substitution encipherment which is the system that relies on replacing each letter by a different letter, a sound by another sound, and a symbol with another symbol. This kind of process facilitates the understanding of the replacements between parts of speech (letter to word, word to sentence). With that being said, the Table below details the decryption of the poem.

Table 4.11: The Decryption Process of the Poem

Ciphertext	Decryption	Cleartext	
ygUDuh	[jə'gɑ:4ə]	you gotta	you got to
ydoan	[jə'dəʊn/ jə'dɒn]	you don	you don't
yunnuhstan	[jənʌnəstæn]	you don understand	you don't understand
ydoan o	[jə'dɒn' nəʊ]	you donnu	you don't know
yunnuhstan dem	[jənʌnəstæn dem]	you don understand dem	you don't understand them
yguduh ged	[jə'gɑ:4ə get]	you gotta get	you got to get
	[jənʌnəstæn dem]	you don understand dem	
yunnuhstan dem doidee	'dɜ:4ɪ]	dirty	you don't understand them
yguduh ged riduh	[jə'gɑ:4ə ge ridə]	you gotta get rida	dirty

ydoan o nudn	[jədn̩ 'nəʊ 'nʊdn̩]	you donnu nothin	you got to get rid of
LISN bud LISN	[lɪsn̩ bʌd lɪsn̩]	LISEN bud LISEN	you don't know nothing
dem	[dæm]	dem	LISTEN budy LISTEN
gud	[gʌ:d]	god	damn
am	[æm]	dam	God
lidl yelluh bas	[lɪ45= jɛləY bæʃ]	litle yella bastads	damn
tuds weer goin	[tədz wɪgəɔɪŋ]	we're goin	little yellow bastards
duhSIVILEYEzum	[tə 'sɪvələɪzəm]	to civilize em	we are going
			to civilize them

According to **Table 4.11**, the decryption process shows how the poem is supposed to be pronounced and read. The cleartext, as shown on the Table, is divided into two sub-sections in which the first part sounds as a vernacular language (American dialect) as seen in 'you gotta' and 'you donnu' and the second part is written in Standard English to make the poem more comprehensive and accessible.

What makes the poem difficult to pronounce, starting with the word *ygUDuh*, is that the poet has used a writing technique, so to speak, the lipograms where he deliberately avoided some letters, and what makes the poem more difficult is that Cummings has composed a text of this length by omitting high frequency letters, in particular vowels. Table 4.12 explains and indicates the omitted letters.

Table 4.12: Lipogram Encipherment in the Poem 'y $gUDuh$ '

Letters and Words	Lipogram ciphery	Plaintext
y $gUDuh$ = y/ gUD/duh	y = you , d = / t /, duh = ta / to	you gotta / you got to
ydoan o = y/ doan / no	y = you , doan = don / don't , no = nu / know	you donnu / you don't know
y $nnuhstan$ = yu/ nnuh/ unnustan	y = you , nuh= don / don't , unnustan = undestan/ understand	you don undestan / you don't understand
y $gUDuh ged riduh$ = y/ gud/duh ged rid/duh	y = you , d = / t /, duh = ta / to ged = get , rid = rid , duh = da / to	you gotta get rida / you got to get rid of

Consequently, the explanation on Table 4.12 explains the lipogram decryption process which provides a kind of a logical sense to the pronunciation of the poem. This is done by replacing the letter /y/ with the pronoun 'you', the letter /d/ with the letter /t/, and the letter /o/ with the word 'know'. With that being dealt with, and after decrypting the text, the poem 'y $gUDuh$ ' can be easily read.

you got to

you don't

you don't understand

you don't know

you don't understand them

you got to get

you don't understand them

dirty

you got to get rid of

you don't know nothing

LISTEN budy LISTEN

them

God

damn

little yellow bastards

we are going

to civilize them

C. Deciphering the Poem '*r-p-o-p-h-e-s-s-a-g-r*'

Differing from the previous poem which is meant to be heard rather than read, the poem entitled r-p-o-p-h-e-s-s-a-g-r has another perspective to deal with. This particular poem is meant to be seen and not only read. The focus here sheds light only on how to read the poem. Therefore, for what I believe it is the best way to make this poem readable, is to start, firstly, with reordering the scrambled words such as r-p-o-p-h-e-s-s-a-g-r, 'PPEGORHRASS', and 'gRrEaPsPhOs'. Secondly, we should focus on omitting the scattered punctuations such as parentheses, dashes, exclamation mark, colon as in 'a)s w(e loo)k', 'eringint(o-', and '!p:'. Thirdly, we should compound the separated letters for instance: ':l', 'eA', and '!p:'. Finally, separate the none-sense compound words, for example: 'upnowgath' 'eringint', and

‘rea(be)rran(com)gi(e)ngly’. The Table below illustrates the process in a more detailed manner.

Table 4.13: Deciphering Cummings’ Poem ‘r-p-o-p-h-e-s-s-a-g-r’

Ciphertext	Type of encryption	Decryption	Plaintext
r-p-o-p-h-e-s-s-a-g-r	Scramble	Rearranged scrambled letters	grasshopper
who			who
a)s w(e loo)k	Tmesis	Separate between what is inside and outside parenthesis	as we look
upnowgath	Lack of space	Separate using space	up now gathering
PPEGORHRASS			GRASSHOPPER
Eringint(o-			Into
aThe) :l			a ‘T’ he
eA !p: S a (r			leaps
rIvInG	Spacing	Omit the overuse of spacing	arriving
.gRrEaPsPhOs)			grasshopper
rea(be)rran(com)gi(e)ngly	Tmesis	Separate between what is inside and outside parenthesis	rearrangingly be
,grasshopper;			come grasshopper

The decryption process in **Table 4.13** facilitates the reading process of the poem by going through different levels of decryption. However, when dealing with the analysing and reaching a literary significance of the poem, it is best to deal with the original form of the poem as written by the poet Cummings. This is because the ostensibly haphazard spacing, unconventional use of punctuation, capitalization, small letters, line divisions, anagrams, and chaotic grammar are put as they are for a purpose. This means that any dislocation of any part of the poem will lead to a misunderstanding of the poem. Nevertheless, after decryption is achieved, the poem ‘*r-p-o-p-h-e-s-s-a-g-r*’ could be read as follows:

grasshopper
 who as we look
 up now gathering
 GRASSHOPPER
 Into the
 leaps
 arriving grasshopper
 rearrangingly be come
 grasshopper

D. Deciphering the Poem ‘*the sky was*’

As asserted earlier, the poem at hand does not possess cryptographic peculiarities, yet it does hold some traits which are similar to the aforementioned encrypted traits in the previous selected poems. However, these traits do not create any problems for readers when it comes to reading the poem. In this respect, the Table below illustrates, or rather facilitates the so-called cryptographic qualities.

Table 4.14: The Decryption Process of the Poem ‘the sky was’

Ciphertext	Decryption	Plaintext
the	the	the sky was
sky	sky	candy luminous
was	was	
can dy lu	can ■ dy lu	edible spry
minous	minous	pinks shy
edible	edible	lemons
spry	spry	greens cool chocolates.
pinks shy	pinks shy	
lemons	lemons	
greens cool choc	greens cool ■ l choc	
olate	olate	
s.	s.	
un der,	un ■ der,	under
a lo	a lo	a locomotive
co	co	
mo	mo	
tive s pout	tive s ■ pout	spouting
ing	ing	
vi	vi	violets
o	o	
lets	lets	

As illustrated in **Table 4.14**, the decryption process deals with the criterion of lining, displacement and spacing whereby the first step of decryption is to eliminate the spacing that separate word structure such as: ‘**can dy**’, ‘**coo 1**’, and ‘**un der**’. The second step involves compounding the distorted words such as in:

➤ **a lo**
co
mo
tive

Accordingly, the words in the decryption section are written in bold format so that they indicate the words that should be written in one unity, whereas the highlighted spacing indicates the needless spacing.

II. A STYLISTIC ANALYSIS AS AN APPROACH TOWARDS CONCRETE/VISUAL POETRY

After decrypting Apollinaire’s and Cummings’ selected poems and making what was once unreadable readable, we reach now the final step of this research, namely a stylistic analysis of the selected poems. However, before delving into the analysis, it is of a great importance to point out some important points: (i) a disclaimer whereby the researcher does not claim any special objective status for the interpretation provided in this section, (ii) the attempted stylistic analysis of the selected poems is meant to illustrate how linguistic clues can contribute to reaching a literary interpretation, (iii) since the objective of this research is more focused on facilitating the reading of concrete poetry and implementing cryptology as a stylistic level rather than reaching the interpretation of the selected poem, not all the selected poems are

subjected to a stylistic analysis except for the poems entitled 'ygUDuh', 'r-p-o-p-h-e-s-s-a-g-r' and 'the sky was' by E. E. Cummings.

In order to have a genuine stylistic analysis, the aforementioned poems must be dealt with in their original form as written by the poet. This is done to preserve the visual aspect that each poem has and to maintain the literary significance of the poem and any misplacement of any part in the poem will lead to a misunderstanding of the poets' intended meaning.

1. A Stylistic Analysis of 'ygUDuh'

The poem at hand states a simple story, and yet transmits a deeper meaning. It is a kind of a dialogue between two men often interrupting each while discussing America's involvement in World War II against the Japanese. Furthermore, the poem is written in colloquial English. As asserted in the previous section, the characteristic that differentiates the poem 'ygUDuh' from the other poems of Cummings is its unique use of language. Unlike the other four poems, this poem is meant to be heard, thus, it is important that the phonetic transcription strings along with the poem for the sake of making it possible to be read.

you got to

you don't

you don't understand

you don't know

you don't understand them

you got to get

you don't understand them

dirty

you got to get rid of

you don't know nothing

LISTEN budy LISTEN

damn

God

damn

little yellow bastards

we are going

to civilize them

A. Graphological Level

1) *Text Format*

The poem is written in a free verse format, which means that the poet does not necessarily obey the strict traditional form or meter norms. However, that does not mean that Cummings is writing without rules; it just means that he is creating and using his own system for the unique needs of his poem.

2) *Capitalization and Decapitalization*

The violation of the norms of capitalization is vividly seen in this poem. Capitalization is barely extinct, yet we can only see it in the first line, the tenth, and the sixteenth. However, according to the rules of graphology, it is not acceptable to capitalize a letter in the middle of

the word, but in the first line of the poem ygUDuh Cummings capitalizes two letters (U and D). In this case, Cummings deliberately capitalizes these two words. If we go back to Table 4.11 ygUDuh means 'you gotta' in the plaintext, even this expression cannot be capitalized as the following 'you gOTTa'. Normally the only letter that should be capitalized is the letter 'y' because it is the first letter of the first line of the poem. Even if we consider the first line as the title of the poem, as all of Cummings' poems are, we are not allowed to capitalize it the way the poet did. However, the intention behind capitalizing particularly the middle of the word is because the poet treats that poem in the spoken form rather than the written one. Hence, capitalization in the poem is a foregrounding that indicates emphatic stress, as in **SIVILEYEz** (civilize), as used by the character who is trying to convince the addressee to understand what he believes is true and right.

The existence of capitalization is present in the tenth line in 'LISN bud LISN' which is the first time we can notice any full word capitalized in the poem, yet this does not mean that the rules of capitalization are not broken. Indeed, foregrounding, in this case, indicates a kind of anger as if the emotions took the best of one of the men who again uses emphatic stress to push the other man to listen to him and understand what he is trying to say.

The last line of the poem, also, possesses a whole capitalized word as in 'SIVILEYE' where the poet foregrounds this part of the line deliberately to show the biggest lie the Americans' always use to justify their thirst toward blood and war.

3) *Punctuations*

Since the poem is meant to be heard and not to be read, it is understandable not to find any symbol of punctuation, instead the focus is on the phonological level.

B. Phonological Level

1) Alliteration

The poet uses alliteration to grab attention and the first use of alliteration is shown in the following lines:

ygUDuh

ydoan

yunnuhstan

ydoan o

yunnuhstan dem

yguduh ged

yunnuhstan dem doidee

yguduh ged riduh

ydoan o nudn

The repetition of the consonant ‘y’ which represents the word ‘you’ is purposely used to grab the readers’ attention and make them realize and understand the involvement of the Americans in WWII.

2) Intonation

One of the best ways of achieving a credible interpretation of the poem is the correct way of reading it out loud, therefore mastering the rise and fall of the tone in the poem has a massive effect on its meaning. The poet varies the use of rising and falling tones, and thus varies the purpose of each one of them. We shall consider the following as an example:

LISN bud LISN (rising intonation) used to express strong prominence

lidl yelluh bastuds (falling intonation) used to express irony and mocking the Japanese.

C. Lexical Level

1) Repetition

The poem 'ygUDuh' possesses many repeated expressions that indicate simple informal diction and emphasis. The Table below provides the repeated words:

Table 4.15: Repetition in the Poem 'ygUDuh'

Words	Repetition	Line
ygUDuh	Three times	Line 1, 6, and 8
ydoan	Three times	Line 2, 4, and 9
yunnuhstan	Two times	Line 3, 5, and 7
dem	Three time	Line 5, 7, and 11
ged	Two times	Line 6 and 8
LISN	Two times	Line 10

2) Neologism

Since the poem is written phonetically, the whole text seems to be totally new as if it is extracted from a new language that the reader is not familiar with. However, using the key to decipher it brings to our attention that the language used here is the English language by juxtaposing written and spoken forms along. Neologism means the creation of new words, yet in our case, it depends on how we treat the poem, if we study it in a written form we can

conclude that there are new words in it, but if we consider it as a spoken one, it is nothing more than drawing words on paper which is the case in the poem at hand.

D. Semantic Level

1) *Colloquialism*

As mentioned before, the poem includes an American accent, New Jersey or even New York to be precise. The major part of the poem's conversation remains enigmatic to us. Indeed, we neither know about the poem's topic nor much about the speaker. However, what we can grasp from the personality of the speaker is his lack of identity and individuality which states him as an average member of society. The language used in the poem is vernacular, thus we can assume that the context where the conversation happens is far from those contexts where academic language takes place. Hence, the place can be a bar, a restaurant, or out in the street. If we read the poem from this perspective, which is believed to be the credible way to read it, we get the bigger picture of the use of colloquial language and we can take an idea about the personality of the persona.

you gotta

you don

you don undestand

you donnu

you don undestan dem

you gotta get

you don undestan dem....

2) *Irony*

One of the poet's favourite literary devices is irony. The poem is disguised in irony and it can be seen in the concluding lines: 'lidl yelluh bas/ tuds weer goin/ duhSIVILEYEzum' which reveal the true meaning behind the words' facade. In this case, Cummings displays mocking of American foreign policy. The 'lidl yelluh bastuds/ little yellow bastards' would be the Japanese whom America was opposing in WWII. Ironically, the language used by the speaker makes the Americans sound like the uncivilized ones. In addition, we learn that the character is a racist and the insulting tone he uses indicates that he considers himself superior.

2. A Stylistic Analysis of '*r-p-o-p-h-e-s-s-a-g-r*'

The poem '*r-p-o-p-h-e-s-s-a-g-r*' is considered as an example by excellence which determines Cummings' unique poetic style. It is a free verse poem where Cummings uses a variation of techniques in order to produce a replica of an insect's haphazard arrangements. The scrambled letters at the beginning of the poem from the word 'grasshopper', thus we have to assume that the main idea of the poem is talking about a grasshopper.

A. Graphological Level

1) *Text Format:*

As mentioned earlier the poem is structurally a free verse poem in which the poet employs many of his distinctive typographical devices. The poem in itself is a violation of any conventional norms of form of poetry that obligates the readers to re-read it again and again. However, in contrast to the analysis of the previous poem '*ygUDuh*' this poem must keep its original form (see Figure 4.15 below):

Figure 4.15: Stenography in the Poem ‘r-p-o-p-h-e-s-s-a-g-r’

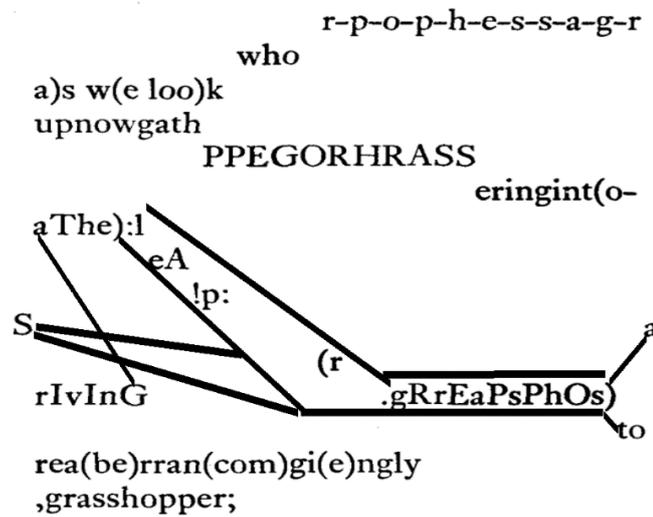


Figure 4.15 is a representation of stenography technique which is a cryptologic device of hiding an image or a message inside a text. At this point, Cummings embedded the cubic drawing of a grasshopper that is enough evidence that the theme of the poem talks about a grasshopper. The visual reordering of the poem expresses how difficult it is to describe the lifestyle of a non-human creature with a human language. Therefore, the best Cummings can do is to demonstrate the essence in the life of a grasshopper by placing letters, words, and symbols not at random but intentionally.

2) Capitalization and Decapitalization

Similarly to the poem ‘ygUDuh’, this poem has its own violation of the norms of capitalization, yet, its purpose differs from that of ‘ygUDuh’. Indeed, the first appearance of the capital letter occurs at the middle of the poem:

a)s w(e loo)k

upnowgath

PPEGORHRASS

eringint(o-

Unlike the first word of grasshopper which is scrambled r-p-o-p-h-e-s-s-a-g-r the second word is written all in capital letters 'PPEGORHRASS'. This is purposely written this way to refer to the fact that the grasshopper is now getting closer. The way in which the poet has arranged these words provides a gradual clarification of the overall meaning of the poem. At first, the poem starts with a bunch of random small letters which indicate how small things are when they are far from the naked eye as well as unidentifiable. However, after reading the poem repeatedly the code in which the poem is written becomes decoded and more recognizable. Another appearance of the capital letter is observed in the third use of the word grasshopper which is written by alternating capital and lowercase letters, 'gRrEaPsPhOs'. This particular format shows that the grasshopper has gained the attention of the poet, but it is still failing in its attempts to clearly get his fullness.

3) *Punctuation*

At a first glance, the placement of the punctuation in the poem seems to be absurd, weird, and nonsense. However, in reality, punctuation in the poem plays a massive role in achieving its true meaning since in poetry everything happens for a reason and there is no place for arbitrariness. Therefore, as stated earlier, it is strictly demanded that we treat the text in its original form because the symbols gathered in the poem possess half the meaning of the poem.

The poem starts with a scrambling of the word grasshopper, r-p-o-p-h-e-s-s-a-g-r, by separating each letter from the other with a hyphen. Then, the poet uses parentheses 'a)s w(e loo)k' to show the incapacity and difficulty of looking, and then calculatedly disregards the proper spacing techniques in 'upnowgath' to spell out 'up now gath' which turns into 'gathering' after second appearance of the word grasshopper. Another unorthodox use of punctuation is observed in the word leaps:

:l

eA

!p:

S

The colon symbol that separates the word ‘leaps’ from the poem indicates that the verb leaps is the milestone of the poem as it bridges the first part of the poem, which is coded, with the second part of the poem which is decoded. One can notice that there is an exaggeration in the use of spacing and this can be seen in the ‘S’ of ‘leA!p:S’ and the ‘a’ of ‘arrIvIng’. Both of these letters are far off the margins because they cannot be contained within the page. In other words, the leap of the grasshopper is giant.

In the penultimate line of the poem, the use of parenthesis is again observed in ‘rea(be)rran(com)gi(e)ngly’. However, this time in order to decrypt the meaning, the reader must at first join the letters outside the parenthesis together to form the word ‘rearranging’ and then filter out the letters inside the parenthesis to spell out the word ‘become’. Lastly, the last word of the poem ends with a semicolon which seems to be intentional, for it indicates the continuity of grasshopper’s leaping.

B. Lexical Level

1) *Repetition*

Cummings deliberately repeated the word grasshopper four times in the poem. Although they look completely different from each other, they refer to the same insect which is the grasshopper:

r-p-o-p-h-e-s-s-a-g-r

PPEGORHRASS

gRrEaPsPhOs

grasshopper

Through this technique, Cummings is simply having fun with the manipulation of the overall meaning of the poem by merely changing the way that he reorders the letters.

2) *Affixation*

One of most known techniques that Cummings uses in his writing is the unconventional use of affixation (prefixation and suffixation). By adding the suffix 'ly' to the word 'rearrangingly', Cummings changed the word from a gerund to an adverb to demonstrate the evolution of the grasshopper as it gradually becomes clear to the observer and to the reader. If we take a really close look on how the word grasshopper is written throughout the poem, we would notice that the poem started with a ciphered text r-p-o-p-h-e-s-s-a-g-r and ended up with a cleartext which is 'grasshopper'.

C. Semantic Level

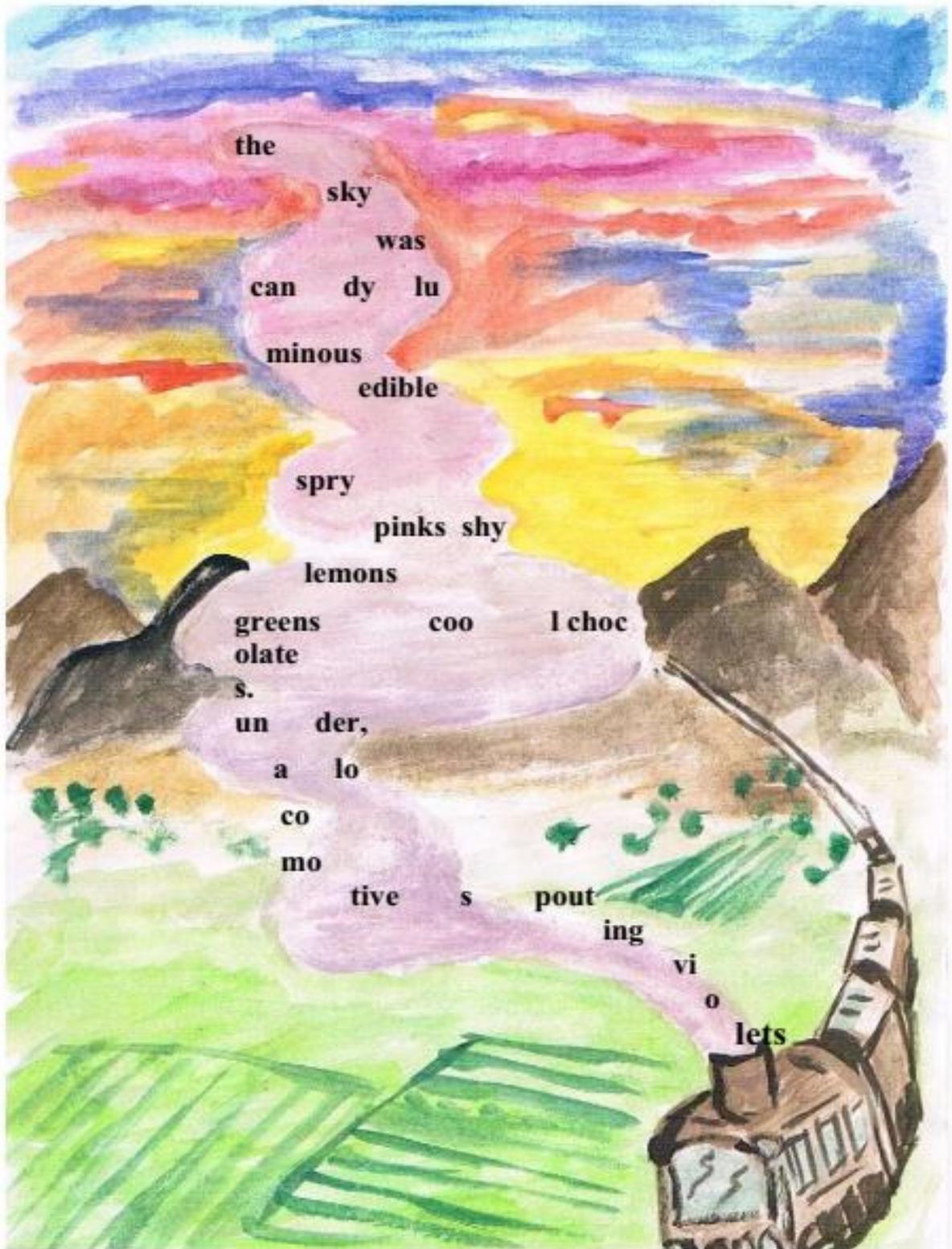
The speaker in the poem seems not to understand the purpose of apparently random situation. Through the first part of the poem (r-p-o-p-h-e-s-s-a-g-r/ who/ a)s w(e loo)k/ upnowgath) he feels confused or helpless towards the event. This could be because the grasshopper is arbitrary and a non-human creature. The anagrams in r-p-o-p-h-e-s-s-a-g-r and 'PPEGORHRASS' seem strange and unfamiliar to the speaker's tongue. Therefore, it is hard for him to identify what is being described. The word 'leaps' makes a major change in the tone of the speaker as it transfers him from puzzlement to recognition and amazement, as well as the emphasized 'leaps' made the speaker realize that everything in life is meaningful, not meaningless. Everything happening

in the poem has a significant purpose; from the misuse of the human language, unorthodox use of capitalization and punctuation, to the choppiness of the lines such as the ‘leA!p:’.

3. A Stylistic Analysis of ‘the sky was’

Before starting the analysis of the poem, first, it is important to fill the poem with a visual background that later will help facilitate the analysis. The visual background consists of a natural view full of multicoloured sky, mountains, and lands. However, all the colours that are put in the image are extracted from the poem itself. See Figure 4.16

Figure 4.16: The Poem 'the sky was' by Cummings



A. Graphological Level

1) *Text Format*

The poem at hand is a mixture of art and poetry as the words are arranged in the form of a cloud of smoke billowing from the train mentioned near the end of the poem “under a locomotive spouting violets”. The way the words are scattered on the picture as shown in Figure 02 can be read from top to bottom as “the sky was candy luminous edible spry pinks shy lemons greens cool chocolates. under, a locomotive spouting violates” simply because it is always a natural and logical matter to observe the smoke from above before getting any idea about its source.

2) *Capitalization and Decapitalization*

Astonishing it is to find a whole text with no capital letter; this is a clear violation of the capitalization rules. The least thing is that the poet could do is to capitalize the ‘T’ letter of the article ‘the’ for being the first word of the poet. However, Cummings purposely put the initial word in lower case to show how high the smoke is in the sky. Indeed, no matter how big elements are, they just get smaller in every distance that stands between them and the naked eye. Another expected capital letter could be in the word ‘under’ because it is just after the full-stop (period) of the word. According to the rules of capitalization; any word coming after a period must be capitalized. Yet, Cummings again breaks this rule by not capitalizing the ‘U’ letter of ‘under’.

3) *Punctuations*

To some extent Cummings exaggerates in the use of spacing among and between the following words: ‘can dy’, ‘coo l’, ‘un der’, ‘s pout’, ‘can dy lu’, ‘greens coo l choc’, and ‘tive s pout’ this could be done for the sake of demonstrating how vast and spread the smoke is up in the sky.

The period after the 'S.' of the word 'chocolates' is the first punctuation symbol that appears. It could be the separation between the natural entities of nature such as the coloured sky, the chocolate mountains, and the green lands and the man-made entities such as the locomotive and the uprising smoke that billows from it.

B. Lexical Level

This poem is a descriptive demonstration of a visual view, therefore, the poet uses so many adjectives to fulfil and reach the artistic image. The adjectives used are 'luminous', 'greens', 'spry', 'shy', and 'edible'. Sometimes the words are confusing as the reader might not know the true function of the word 'pinks' as it can function as a verb, noun, or adjective. However, in this case, the word functions as a verb for having the 's' of the third person singular and the multi colouring of the sky pinks a lemon's colour.

C. Semantic Level

1) *Ambiguity*

As asserted earlier, the confusion of some words can lead to ambiguity. The beginning of the poem can be attractive to the readers, yet as soon as they carry on reading the poem they get stuck in the middle as the distortion of the lines takes all over the poem. However, Cummings' way of writing this poem requires a look at the bigger picture so that one can reach a literary interpretation.

2) *Allusion*

In the poem, there are many words which represent the beauty of nature such as 'candy' in '*the sky was candy*' which indicates that the view is lovely and joyful to watch. The second word is 'luminous' which means light and indicates that the event happened in day light. The third word is 'chocolates' which represents the existence of the mountains as they share the

same colour as chocolates which is the brown colour. The last word which 'greens' represents the spring season where all lands are covered by green grass,

3) *Honest Deception*

There is a kind of exaggeration at the end of the poem. As a matter of fact, trains generally spout either white or black smoke, but Cummings put a colour to smoke which is 'violets' which perhaps is meant to give the view of a visual effect that is influenced by the multi-colouring of the sky.

GENERAL CONCLUSION

As indicated at the beginning of the thesis, the aim of the study was to show to what extent cryptology can contribute to the interpretation of literary texts, specifically concrete/visual poems. Accordingly, the main research question was about the extent to which the use of cryptology contributes in facilitating the process of reading visual/concrete poetry. In order to answer this question, the researcher followed a procedure that included the subsequent steps.

As an initial step, the researcher gathered a set of concrete/visual poems written by two iconic Figures of concrete/visual poetry, viz Apollinaire and Cummings. The selected set of poems included the poems *Payasage*, *La Cravate et la Montre*, *Cœur Couronne et Miroir* and *La Mandoline l'Éillet et le Bambou* by Apollinaire; and *l(a)*, *SNOW*, *ygDuh*, *r-p-o-p-h-e-s-s-a-g-r* and *the sky was* by Cummings. The reason for selecting these poems was the fact that readers failed to recognize them as poems and because of the difficulty of their readability, notwithstanding reaching a literary interpretation for these poems.

The next step involved revealing the use of cryptology in the previously introduced set of poems. This was achieved by extracting cryptographic features in the poems such as transposition encipherment, substitution cipher, steganography, anamorphosis, morphological deconstruction, tmesis among other features. In order for the extraction to be successful, the researcher suggested a set of criteria on which the extraction could be based. These criteria included the form of the poem, the use of punctuation marks and symbols, the use of capitalization, substitution of letters and words, the use of foreign/dead languages, the use of lining, displacement and spacing, words distortion and invention and hidden shapes/Figures.

The following step was concerned with the decryption of the extracted cryptographic peculiarities in the poems. However, in order to decrypt the cryptographic peculiarities, the researcher adopted the technique of cryptanalysis instead of cryptography since he does not possess the key of decryption. As a result, reading the poems became possible thanks to cryptanalysis.

The final step included a stylistic analysis of Cummings' poems '*ygDuh*', '*r-p-o-p-h-e-s-s-a-g-r*' and '*the sky was*'. The reason for not analysing the whole set of poems stylistically is because the aim of the researcher was to show the contribution of cryptology as a stylistic tool that facilitates the reading of concrete/visual poems and rather than reaching a literary interpretation. The stylistic analysis related to linguistic deviations at the graphological, phonological, lexical, and semantic levels.

After a thorough examination of the analysis of Apollinaire's and Cummings' selected poems, the following findings were revealed:

The selected poems possess different cryptographic peculiarities which differ from one poem to another.

Each poet has his own poetic style, yet they both use the same cryptographic features in their poems.

Each poem has its own decryption process which differs from that of the remaining poems of the selected set.

Cryptology can be used as stylistic level to facilitate the reading of the selected poems.

It is not evident to determine whether Apollinaire and Cummings deliberately implement cryptology as a writing technique in their poems or not.

The present study being achieved, further studies on the same topic are vividly recommended. Indeed, other cryptographic peculiarities could exist in the selected set of poems by Apollinaire and Cummings and further studies could be carried out to discover those peculiarities. Moreover, other studies could tackle the use of cryptology as a stylistic level in other poems by Apollinaire and Cummings Besides, concrete/visual poems written by other poets other than Apollinaire and Cummings could be studied in relation to the use of cryptology as a stylistic level in order to provide readers with the ability to read those poems.

Other studies could attempt to discover whether Apollinaire and Cummings deliberately intended to implement cryptology in their poetic styles. Such an attempt could contribute in understanding poets' enigmatic style.

Further studies could also deal with modern concrete/visual poetry and apply ICT as a decryption tool to decode modern concrete/visual poems. Indeed, the modern way of writing concrete/visual poems can be decrypted thanks to the use of technology unlike the traditional way which was adopted regarding the poems of the current research.

Other studies could reveal other types of linguistic deviations by attempting a stylistic analysis of concrete/visual poetry, either by Apollinaire and Cummings or other poets. Such an analysis could help researchers/readers in achieving an objective literary interpretation.

In spite of the researcher's attempt to be exhaustive and to cover all aspects and points that relate to cryptology, stylistics and concrete/visual poetry, this work remains, nevertheless, a modest attempt to reduce some of the mystery that surrounds the field of concrete/visual poetry. Thus, the study at hand was limited by the researcher's limited experience and knowledge in the field of cryptology. Indeed, cryptology requires a heavy knowledge of mathematics, algorithms and computer sciences which are not part of the researcher's field of speciality. In addition, Apollinaire's poems were written in French a language of which the

researcher has a limited mastery. The latter limitation prevented the researcher from stylistically analysing Apollinaire's poems.

References

- Ammar, H. (2013). *Cryptography Came from Spartans Military (Greeks)*. ABC-Cryptography-Picture-Story. <https://Ammarhasayen.Wordpress.Com/2013/10/02/Abc-Cryptography-Picture-Story/Amp/>
- Anderson, L. W., & Krathwohl, D. R. (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Longman.
- Apollinaire, G. (1980). *Calligrammes: Poems of Peace and War (1913-1916)* (A. H. Greet, Trans.). University of California Press.
- Apollinaire, G., Eimert, D., & Podoksik, A. (2010). *Cubism*. Parkstone International.
- Aquilina, M. (2014). *The Event of Style in Literature*. Palgrave Macmillan.
- Bally, C. (1951). *Traite De Stylistique Francaise* (3rd Ed.). Georg.
- Bauer, C. P. (2016). *Secret History: The Story of Cryptology*. Chapman and Hall/Crc.
- Bauer, F. L. (2013). *Decrypted Secrets: Methods and Maxims of Cryptology* (4th Ed.). Springer.
- Bennison Gray. (1969). *Style: The Problem and Its Solution*. Mouton.
- Blake, B. J. (2010). *Secret Language*. Oxford University Press.
- Bloch, B. (1953). Linguistic Structure and Linguistic Analysis. *Georgetown University Monograph Series on Language and Linguistics*, 4. (N.D), 40–44.
- Bohn, W. (2001). *Modern Visual Poetry*. University of Delaware Press.

- Borràs Castanyer, L. (2004). Digital Literatur and Theoretical Approaches. *Dichtung Digital*, 3. [Http://Www.Dichtung-Digital.De/2004/3/Castanyer/Index.Htm](http://Www.Dichtung-Digital.De/2004/3/Castanyer/Index.Htm)
- Bradford, R. (1997). *Stylistics*. Routledge.
- Brandstatter, T. (2017, November 17). *THE GOLDEN-BUG: The Edgar Allan Poe Story You've Never Heard Of*. BOOK RIOT. [Https://Bookriot.Com/The-Gold-Bug-Edgar-Allan-Poe/#:~:Text=The%20Gold%2dbug%20was%20the](https://Bookriot.Com/The-Gold-Bug-Edgar-Allan-Poe/#:~:Text=The%20Gold%2dbug%20was%20the)
- British Comparative Literature Association. (1982). *Comparative Criticism*. Cambridge University Press, Nov.
- Carman, C. (1941). *Literature as a Fine Art: Analysis and Interpretation*. Xerox University Microfilms.
- Carter, R. A. (1979). *Towards a Theory of Discourse Stylistics: A Study of Some Applications of Linguistic Theory to the Analysis of Poetry with Particular Reference to W. H. Auden* [Unpublished Phd Thesis].
- Carter, R., & Mcrae, J. (1996). *Language, Literature and the Learner: Creative Classroom Practice*. Longman.
- Castanyer, B. (2004). *Laura Borràs Castanyer: Digital Literatur and Theoretical Approaches*. Www.Dichtung-Digital.De. [Http://Www.Dichtung-Digital.De/2004/3/Castanyer/Index.Htm](http://Www.Dichtung-Digital.De/2004/3/Castanyer/Index.Htm)
- Castanyer, L. B. (2004). *Digital Literature and Theoretical Approaches*. Www.Dichtung-Digital.De. [Http://Www.Dichtung-Digital.De/2004/3/Castanyer/Index.Htm](http://Www.Dichtung-Digital.De/2004/3/Castanyer/Index.Htm)
- Castillo, D. R. (2015). *(A)Wry Views: Anamorphosis, Cervantes and the Early Picaresque*. West Lafayette (Indiana) Purdue University Press Cop.
- Cheever, S. (2015). *E.E. Cummings: A Life*. Knopf Doubleday Publishing Group.

- Cluysenaar, A. (1976). *Introduction to Literary Stylistics: A Discussion of Dominant Structures in Verse and Prose*. Batsford.
- Cohen, R. (1976). *Back to Beckett*. Princeton University Press.
- Comerford, P. (2012, April 9). *Poems for Easter (2): 'Easter Wings' by George Herbert*. Patrickcomerford.Com. <https://www.patrickcomerford.com/2012/04/poems-for-easter-2-easter-wings-by.html?M=1>
- Coughlan, A. (2018, October 24). *Guillaume Apollinaire*. The Art Studio, Inc. <http://www.artstudio.org/Guillaume-Apollinaire/>
- Crystal, D., & Davy, D. (2013). *Investigating English Style*. Longman.
- Cuddon, J. A. (1999). *The Penguin Dictionary of Literary Terms and Literary Theory, 4th Ed.* (4th Ed.). London Penguin.
- Cummings, E. E. (2016). *Complete Poems 1904-1962* (G. J. Firmage & S. Dunn, Eds.). Liveright Publishing Corporation.
- Delfs, H., & Knebl, H. (2002). *Introduction to Cryptography: Principles and Applications*. Berlin. Springer.
- Descartes, R. (1991). *The Philosophical Writings of Descartes. Vol. III, The Correspondence* (J. Cottingham, R. Stoothoff, D. Murdoch, & A. Kenny, Trans.). Cambridge University Press.
- Dirk Rijmenants. (2016, January 12). *The Gold Bug*. Users.Telenet.Be. <http://users.telenet.be/d.rijmenants/en/goldbug.htm>
- Dooley, J. (2018). *History of Cryptography and Cryptanalysis: Codes, Ciphers, and Their Algorithms*. Springer.

- Ellis, J. M. (1977). *The Theory of Literary Criticism: A Logical Analysis*. University of California Press.
- Enkvist, N. E. (1973). *Linguistic Stylistics*. Mouton.
- Esau, H. (1974). *Literary Style and the Linguistic Approach*. *Journal of Literary Semantics*, 3(1). <https://doi.org/10.1515/jlse.1974.3.1.57>
- Fang, W. (2018). *Tensions in World Literature: Between the Local and the Universal*. Springer Singapore.
- Fish, S. (1980). *Is There a Text in This Class? The Authority of Interpretive Communities*. Harvard Univ. Press.
- Foucault, M. (1973). *This Is Not A Pipe* (J. Harkness, Trans.). University of California Press.
- Fowler, R. (1966). *Essays on Style and Language: Linguistic and Critical Approaches to Literary Style*. Routledge & Kegan Paul.
- Fowler, R. (1981). *Literature as Social Discourse: The Practice of Linguistic Criticism*. Bloomington, Ind. Indiana Univ. Press.
- Frederick, W., & Callimahos, L. D. (1952). *Military Cryptanalytics. Part I*. National Security Agency.
- Friedman, N. (2019). *E. E. Cummings: The Art of His Poetry*. Johns Hopkins Univ Press.
- Garcia, E. (2020). *Signs of the Americas: A Poetics of Pictography, Hieroglyphs, and Khipu*. University of Chicago Press.
- Garrett, P. B. (2001). *Making, Breaking Codes: An Introduction to Cryptography*. Prentice Hall.
- Garvin, P. L. (1964). *A Prague School Reader on Esthetics, Literary Structure, and Style*. Georgetown University Press.

- Ghazalah, H. (1987). *Literary Stylistics: Pedagogical Perspectives in An EFL Context* [Unpublished PhD Thesis].
- Giovanna Di Rosario. (2011). *Electronic Poetry: Understanding Poetry in the Digital Environment*. University of Jyväskylä.
- Halliday, M. A. K. (1973). *Explorations in the Functions of Language*. Edwards Arnold.
- Halliday, M. A. K. (2002). *Linguistic Studies of Text and Discourse*. Continuum International Publishing Group.
- Havranek, B. (1932). 'The Functional Differentiation of Standard Language', In Garvin, P. (Ed.). *Prague School Reader in Esthetics, Literary Structure and Style*, 3(1), 3–16.
- Hockett, C. F. (1958). *A Course in Modern Linguistics*. Macmillan.
- Holmes, J., & Wilson, N. (2017). *An Introduction to Sociolinguistics*. Milton Taylor and Francis.
- Ibn Al-Durayhim, A. (N.D.). *Miftah El Kunuz Fi Īidah Al Marmuz*. (N.D).
- Ingarden, R. (1973). *The Literary Work of Art: Studies in Phenomenology and Existential Philosophy* (G. G. Grabowics, Trans.). Northwestern University Press.
- Isidore Chukwuma, N. (2010). *A Linguistic Stylistic Analysis of Chukwuemeka Ike's Novels* [MA Dissertation].
- Kahn, D. (1972). *The Codebreakers. The Story of Secret Writing. (Seventh Printing)*. Macmillan Co.
- Katamba, F. (2005). *Morphology*. Basingstoke Palgrave.
- Kevin, V. (2018). Playfair Cipher [Youtube Video]. In *Youtube*.
<https://www.youtube.com/watch?v=-Kjfbtk1iiw>

- Khader, K. T. (2011). The Need for the Study of Stylistics. In *Iugaza.Edu.Ps*.
[Http://Site.Iugaza.Edu.Ps/Kkhader/Files/2011/10/The-Need-For-The-Study-Of-Stylistics.Pdf](http://Site.Iugaza.Edu.Ps/Kkhader/Files/2011/10/The-Need-For-The-Study-Of-Stylistics.Pdf)
- Kippenhahn, R. (2000). *Code Breaking: A History and Exploration*. Overlook Press.
- Kipper, G. (2004). *Investigator's Guide to Steganography*. Auerbach Publications.
- Klein, P. N. (2014). *A Cryptography Primer: Secrets and Promises*. Cambridge University Press.
- Kolla. (2017). *Hidensend Steganography Software*. Geekdashboard.
[Https://Www.Geekdashboard.Com/Wp-Content/Uploads/2017/07/Hidensend-Steganography-Software.jpg](https://www.geekdashboard.com/wp-content/uploads/2017/07/Hidensend-Steganography-Software.jpg)
- Kostelanetz, R. (1993). *Dictionary of the Avant-Gardes*. Chicago A Cappella Books, C.
- Lars Elleström, Fischer, O., & Ljungberg, C. (2013). *Iconic Investigations*. Amsterdam/Philadelphia John Benjamins Publishing Company.
- Leech, Geoffrey N. (1969). *A Linguistic Guide to English Poetry*. Longman.
- Leech, Geoffrey N, & Short, M. (2007). *Style in Fiction: A Linguistic Introduction to English Fictional Prose*. Pearson Longman.
- Leech, Geoffrey Neil, Deuchar, M., & Hoogenraad, R. (1982). *English Grammar for Today: A New Introduction*. Palgrave Macmillan.
- Lessing, G. E. (2005). *Laocoon: An Essay Upon the Limits of Painting and Poetry*. Dover Publications.
- Levinson, S. C. (2003). *Pragmatics*. Cambridge Cambridge Univ. Press.
- Lyons, J. (1992). *Introduction to Theoretical Linguistics*. Cambridge University Press.
- Malmkjær, K. (2003). *The Linguistics Encyclopedia*. Routledge.

- Marāyātī, M., Mīr ‘alam, Y., & Ṭayyān, M. H. (2005). *Three Treatises on Cryptanalysis of Poetry*. Kfcris & Kacst.
- Mey, J. (2009). *Concise Encyclopedia of Pragmatics*. Elsevier Science.
- Mills, S. (1995). *Feminist Stylistics*. Routledge.
- Miššíková, G. (2013). *Linguistic Stylistics*. University of Constantine Press.
- Mode. (2013, February 8). *Ancient Poetry: Simias Rhodius*. [Http://Text-Mode.Org/](http://Text-Mode.Org/).
[Http://Text-Mode.Org/?P=5212](http://Text-Mode.Org/?P=5212)
- Murfin, R. C., & Ray, S. M. (2003). *The Bedford Glossary of Critical and Literary Terms*. Bedford/St. Martin's.
- Neddard, B. A. (2017). Language as Evolving: Introductory Notes to Some Aspects of Halliday's Systemic Functional Linguistics. *Journal of Literature, Languages and Linguistics*, 34, 58–72.
- Nordquist, R. (2019). *What Is Classical Rhetoric?* Thoughtco.
[Https://Www.Thoughtco.Com/Overview-Of-Classical-Rhetoric-1691820](https://www.thoughtco.com/overview-of-classical-rhetoric-1691820)
- Nørgaard, N., Montoro, R., & Busse, B. (2010). *Key Terms in Stylistics*. Continuum International Pub. Group.
- Paar, C., & Pelzl, J. (2010). *Understanding Cryptography: A Textbook for Students and Practitioners*. Springer.
- Phillips, G. M. (1991). *Communication Incompetencies: A Theory of Training Oral Performance Behavior*. Southern Illinois University Press.
- Poe, E. A. (2009). *The Collected Tales and Poems of Edgar Allan Poe*. Wordsworth Editions Limited.

- Qader Ali, M. A. (2005). *A Stylistic Study of Two Short Stories by D. H. Lawrence: "Odour of Chrysanthemums" And "Tickets, Please"* [Unpublished MA Thesis].
- Reef, C. (2006). *E.E. Cummings: A Poets' Life*. Clarion Books.
- Richards, I. A. (2014). *Practical Criticism V 4, Volume 4*. Routledge.
- Rivkin, J., & Ryan, M. (2013). *Literary Theory: An Anthology*. Blackwell Publishing.
- Romani, L. F. (2017). *Sound in Brazilian and German Concrete Poetry* [Unpublished PhD Thesis].
- RSA Laboratories. (2000). *RSA Laboratories' Frequently Asked Questions about Today's Cryptography, Version 4.1*. RSA Security Inc.
- Saeed, J. I. (2011). *Semantics*. Blackwell.
- Sampson, G. (2001). *Empirical Linguistics*. Continuum.
- Schneier, B. (2015). *Applied Cryptography: Protocols, Algorithms, and Source Code in C*. Wiley, Cop.
- Sharma, S., & Kumar, U. (2013). Review of Transform Domain Techniques for Image Steganography. *International Journal of Science and Research (IJSR)*, 6(4), 194–197.
<https://doi.org/10.13140/RG.2.1.4797.1928>
- Sharp, C. J. (2016, August 5). *English: Speckled Wood Butterfly (Pararge Aegeria) Male, Fermyn Woods, Northamptonshire*. Wikimedia Commons.
[https://commons.wikimedia.org/wiki/File:Speckled_Wood_Butterfly_\(Pararge_Aegeria_Ti rcis\)_Male_2.Jpg](https://commons.wikimedia.org/wiki/File:Speckled_Wood_Butterfly_(Pararge_Aegeria_Ti rcis)_Male_2.Jpg)
- Shire, E. (2017). The Secret Art Life of E.E. Cummings. *The Daily Beast*.
<https://www.thedailybeast.com/the-secret-art-life-of-ee-cummings>
- Simpson, P. (2004). *Stylistics: A Resource Book for Students*. Routledge.

- Sokar, M. (2016). *Postmodern Reading of Visual Poetry*. Grin.
- Solt, M. E. (1968). *Concrete Poetry: A World View*, Bloomington, Indiana University Press.
- Stamp, M., & Low, R. M. (2007). *Applied Cryptanalysis: Breaking Ciphers in the Real World*. Wiley-Interscience.
- Steinberg, D. D., & Sciarini, N. V. (2006). *An Introduction to Psycholinguistics*. Pearson/Longman.
- Stickney, M. M. (1985). "Home at Heart": *The Experimental Use of Language in the Poetry of Gerard Manley Hopkins and E.E. Cummings*. [MA Graduation Dissertation].
- Stinson, D. R. (2002). *Cryptography: Theory and Practice*. Chapman and Hall.
- Symbolictionary.Net. (2012, August). *Sigillum Dei Aemeth (The Sigil of Dei Ameth, Seal of the Truth of God)*. Symbolictionary.Net. [Http://Symbolictionary.Net/?P=1134](http://Symbolictionary.Net/?P=1134)
- Talbot, J., & Welsh, D. (2006). *Complexity and Cryptography: An Introduction*. Cambridge University Press.
- The Public Domain Review. (2011, January 1). *Apollinaire's Calligrammes (1918)*. The Public Domain Review. [Https://Publicdomainreview.Org/Collection/Apollinaire-S-Calligrammes-1918](https://Publicdomainreview.Org/Collection/Apollinaire-S-Calligrammes-1918)
- Tilborg, V. (2000). *Fundamentals of Cryptology: A Professional Reference and Interactive Tutorial*. Springer Us.
- Tindall, W. Y. (1955). *The Literary Symbol*. Columbia Univ. Press.
- Tufte, E. R. (2006). *Beautiful Evidence*. Graphics Press.
- Verdonk, P. (2010). *Stylistics*. Oxford University Press.
- Wales, K. (2014). *A Dictionary of Stylistics*. Pearson/Longman.

- Wardhaugh, R. (2009). *An Introduction to Sociolinguistics*. Wiley-Blackwell.
- Wellek, R. (2018). *The Attack on Literature and Other Essays*. The Harvester Press.
- Wetherill, P. M. (1974). *The Literary Text: An Examination of Critical Methods*. Blackwell.
- Widdowson, H. G. (1975). *Stylistics and the Teaching of Literature*. Longman.
- Widdowson, H. G. (2016). *Stylistics and the Teaching of Literature*. Routledge.
- Wobst, R. (2007). *Cryptology Unlocked* (A. Shafir, Trans.). John Wiley & Sons.
- Wynne, M. (2005). *Stylistics: Corpus Approaches*. Oxford University.
- Zur, V. (2015). *Cryptoschool*. Heidelberg; New York. Springer.

Abstract

The study at hand aims to implement cryptology as a stylistic analysis tool for poetry in general and visual/concrete poetry in particular. Indeed, the present study attempts to discover the extent to which the use of cryptology can contribute in facilitating the process of reading visual/concrete poetry. In order to reach the aforementioned aim and solve the problem of the study, the researcher adopted a textual analysis method of a selected set of poems by Guillaume Apollinaire, namely 'Payasage', 'La Cravate et la Montre', 'Coeur, Couronne Et Miroir' and 'La Mandoline L'oeillet Et Le Bamboo'. In addition to Apollinaire's poems, the researcher selected a set of poems by E. E. Cummings, viz 'l(a)', 'SNOW', 'ygDuh', 'r-p-o-p-h-e-s-s-a-g-r' and 'the sky was'. To analyse data, cryptographic peculiarities in the selected set of poems by Apollinaire and Cummings were extracted, then the encrypted passages of the poems were decrypted by applying multiple cryptanalysis approaches. Finally, a stylistic analysis was conducted on the selected poems so as to reach a literary significance. Effectively, the findings of the study revealed that no common encryption system can be observed in Apollinaire's and Cummings' poems. Furthermore, it appears that even though the selected poems display cryptographic features, it is hard to tell whether the poets deliberately intended to implement cryptology as a writing technique in their poems. Nevertheless, it is difficult to deny the significance that cryptology has in serving to reach a literary interpretation in concrete/visual poetry. Moreover, the significance of cryptology as an additional stylistic level that facilitates the understanding of the poets' poetic style and makes what was once unreadable readable is also undeniable.

Résumé

L'étude en cours vise à démontrer que la cryptologie est un outil clé pour l'analyse stylistique de la poésie en général et en particulier la poésie visuelle / concrète. En effet, la présente étude tente de découvrir dans quelle mesure la cryptologie peut contribuer à faciliter la lecture de la poésie visuelle / concrète. Afin d'atteindre le but susmentionné et de résoudre la problématique de l'étude, le chercheur a adopté une méthode d'analyse textuelle d'un ensemble de poèmes écrits par Guillaume Apollinaire (1918), à savoir 'Paysage', 'La Cravate et la Montre', 'Cœur Couronne et Miroir' et 'La Mandoline l'Œillet et le Bambou'. En plus des poèmes d'Apollinaire, le chercheur a sélectionné un ensemble de poèmes d'E. E. Cummings (1904 - 1962), à savoir «l(a)», «SNOW», «ygDuh», «r-p-o-p-h-e-s-s-a-g-r» et «the sky was»). Pour analyser les données, les particularités cryptographiques de l'ensemble sélectionné de poèmes d'Apollinaire et Cummings ont été extraites, puis les passages cryptés dans les poèmes ont été décryptés en appliquant de multiples approches de cryptanalyse. Enfin, une analyse stylistique a été menée sur les poèmes sélectionnés afin d'atteindre une interprétation littéraire. En effet, les résultats de l'étude ont révélé qu'aucun système de cryptage commun ne peut être observé entre les poèmes d'Apollinaire et de Cummings. En outre, il semble que même si les poèmes sélectionnés présentent des caractéristiques cryptographiques, il est difficile de dire si les poètes ont délibérément voulu mettre en œuvre la cryptologie comme technique d'écriture dans leurs poèmes. Néanmoins, il est difficile de nier l'importance que la cryptologie a en servant à atteindre une interprétation littéraire dans la poésie concrète / visuelle. De plus, l'importance de la cryptologie en tant que niveau stylistique supplémentaire qui facilite la compréhension du style poétique des poètes et rend lisible ce qui était autrefois illisible est également indéniable.

ملخص

تهدف هذه الدراسة إلى تطبيق علم التشفير كأداة تحليل أسلوبية للشعر بشكل عام والشعر الخرساني بشكل خاص. في الواقع، تحاول هذه الدراسة اكتشاف مدى مساهمة استخدام التشفير في تسهيل عملية قراءة الشعر الخرساني. وبغية الوصول إلى الهدف المذكور أعلاه وحل مشكلة الدراسة، اعتمد الباحث أسلوب التحليل النصي لمجموعة مختارة من قصائد الشاعر غيوم أبولينير (1918) والتي كالتالي الطبيعية 'Payasage'، ربطة العنق والساعة 'La Cravate et la Montre'، القلب التاج والمرآة 'Coeur, Couronne Et Miroir'، المندولين القرنفل والخيزران 'La Mandoline L'oeillet Et Le Bamboo'. بالإضافة إلى قصائد أبولينير اختار الباحث مجموعة من قصائد الشاعر إي. إي. كامينغز (1904 - 1962)، والمسماة ل(a)، الثلج 'SNOW'، يوجادا 'ygDuh'، الجراداة 'r-p-o-p-h-e-s-s-a-g-r'، وكانت السماء 'the sky was'. ولتحليل المعطيات، تم استخراج خصائص التشفير في مجموعة قصائد مختارة من أبولينير وكامينغز، ثم تم فك تشفير المقاطع المشفرة من القصائد من خلال تطبيق أساليب تحليل التشفير المتعددة. أخيراً، تم إجراء تحليل أسلوبية على القصائد المختارة للوصول إلى فهم أهميتها الأدبية. وبشكل فعال، كشفت نتائج الدراسة أنه لا يمكن ملاحظة أي نظام تشفير مشترك في قصائد أبولينير وكامينغز. علاوة على ذلك، يبدو أنه على الرغم من أن القصائد المختارة تعرض ميزات تشفير معينة، ولكن من الصعب معرفة ما إذا كان الشعراء قد استعملوا تطبيق التشفير كأسلوب كتابة في قصائدهم عن قصد. ومع ذلك، لا يمكن إنكار أهمية علم التشفير في الوصول إلى تفسير أدبي في الشعر الخرساني. علاوة على ذلك، لا يمكن إنكار أهمية استعمال علم التشفير كإضافة في الدراسة الأسلوبية لفهم أسلوب الشعراء.