

## **Essential of Music and Art - Crypticalism**

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### **Course review and Art definition**

To be honest I felt a bit unexpected about this course at the first lecture. The discussed art works seemed quite far from what I knew before. However, soon after I thought that I might not enjoy the course, I found the content of this course always jumps into my daily conversations. Every piece of work left me great impression and impact without me actively enjoying them at the moment of encounter. As I realised this, I started to like the course more and more. With this realisation, I would make my own version of art definition: Things that stay in your memory, activate your mind or make you want to share/discuss.

The artworks discussed during lectures are mainly made by artists. While in my essay of crypticalism, some work might not made by people who call themselves artists, but their work well-fit in my own definition of art and left space for people to discuss.

### **Motivation**

Why do I write about crypticalism? When I was discussing about some contemporary artworks with my friends, we joked that some artists made much more effort to reveal and explain the meaning or value of their works, than the effort of actually making the artwork. It made me started to think: what if we do things the other way around? Isn't it a kind of beauty to create something that hiding the things to be revealed instead of explaining them, risking that it might never be revealed? Something like a puzzle. Apart from having the intention of making things hidden and puzzling, many artists are actually talented in crypticalism. For example, the inventor of Morse code was actually a great painter of his time. He made his first prototype of telegram using his painting stretcher.

Like many children, I loved playing puzzle games when I was little. Cryptical works have the beauty of catching curiosity, effort, talent and inspiration of a person to fully enjoy the content. As we grew up, it gradually gives back those features to us (trigger our self-realisation). Like when you were given a super dusty paint, and you spent a year to clean it in order to see the content of the paint, finally when you cleaned it up you find that is a mirror, showing how determined your face was.

I guess when people are fascinated about puzzling works, many of them are more curious about their own ability to solve the puzzle, than the actual content of the solution. I realized that as growing up, I cared more and more about techniques than the content of a work, this might be a sign of losing some pure curiosity. I wish after tasting enough technique analysis in my essay, we can all call back our childhood curiosity and imagination, allow us some moments back to the pure attention of the actual content of art works.

### **My explanation of crypticalism**

When people make a crypticalism work, it is important that part or the whole message that they are communicating is hidden (made different to perceive). For some works, the author didn't reveal the key of the puzzle, or didn't even reveal there is a puzzle. In these cases, it might be controversial to classify their intention. Thus, in my essay, the focus will be on the finding & interpretation of those works instead of debating about the original intention of the author. I believe in this way we can discover more about the possibilities of applying crypticalism techniques.

## Techniques

There are two types of technique used in crypticalism. I would like to define them before sharing the works:

- *Crypto-art*: Make something that is difficult or impossible to understand without certain knowledge(key). However, people clearly know that something is being communicated (they just don't get the content). This approach can also be described as puzzling-by-content (need special knowledge to understand).
- *Stegano-art*: Different from crypto-art, Stegano-art focus more on hiding the fact of communication (random people don't know that something is being communicated). The content itself might not be difficult to understand once the right "key" is found. This approach can also be called puzzling-by-context (need a special observing way as key).

## Art works related to crypticalism

There are many works from various discipline which used the techniques of crypticalism. I will list some of them classified by the approaches they used.

### 1. Crypto-works

#### 1.1 Ciphers

When talking about crypto works, the first thing to mention is cipher. Cipher can be a medium for communicating serious information like military secrecy. It can also be a medium to convey expression and imagination. I selected two letters and two books in this area:

##### 1.1.1 Dorabella [Edward Elgar 1987]:

Composer Edward Elgar was known to have certain interest in ciphers. Once he wrote a note inside a letter to his friend Dora Penny with cryptic writings which Dora finally didn't understand (Figure 1). There were few possible interpretations but none of them formed very meaningful sentences (only sections of words). Edward might have been prepared that no one can understand it, since he didn't give any explanation or hint later. However, people nowadays are still very interested in what the content is and is trying to decipher it. It is a good example of one-to-one personal expression by ciphers.

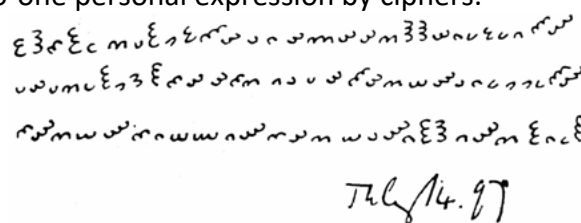


Figure 1 Dorabella – Edward Elgar 1987

##### 1.1.2 Message from the Zodiac Killer[Unknown 1960s-1970s]:

A similar example is the message of the Zodiac Killer. Despite the horrible crime he did, the zodiac killer left several cryptical messages which are still catching people's curiosity nowadays(Figure 2). There has been many serial killers in the history, while the zodiac killer made a special impression with his crypticalism works. Similar to Elgar, he didn't expect people to decipher his messages. Unlike Elgar, he did gave some answers (by killing the target). Those answers gave some more interacting probability between the killer and the decipherers (they gave hints and patterns) for his later works. This is an example of one-to-many statement-like expression by ciphers.



Figure 2 Example of a message from the Zodiac killer

### 1.1.3 The Voynich Manuscript [Unknown Author ~ 1404-1438 ]:

When people want to express or share more information, they write books. The Voynich Manuscript is an ancient book containing ciphers and graphs (Figure 3). The meaning of those ciphers was still not understood. It was guessed to be a handbook about pharmacopoeia and medicine. Since the intention of writing this book is unknown/unclear, we couldn't figure out whether the cipher is intended or not (maybe it should only be understood by a certain group of people, or maybe that was a normal language used at that time). Thus, it is still controversial to conclude it as a work of crypticalism.



Figure 3 A page of the Voynich Manuscript

### 1.1.4 The Codex Seraphinianus [Luigi Serafini 1981]:

Similar to the former book, the Codex Seraphinianus is also a book full of ciphers and strange figures (Figure 4). The ciphers are still not understood by the public yet. I read this book when I was little, and it went not frustrating at all. Because I was more fascinated by the figures and imagination of the strange world he built in the book, instead of those strange words. Different from the Voynich Manuscript, this book is meant to be cryptical. So the author invented those ciphers and imaginary graphs, constructed a whole strange world. Strictly speaking, there is possibility that the book did not convey a message but only

imaginations of the author (it could be that all the text content is actually random and nonsense). However, it is still a good example of using ciphers to express imagination and creativity.

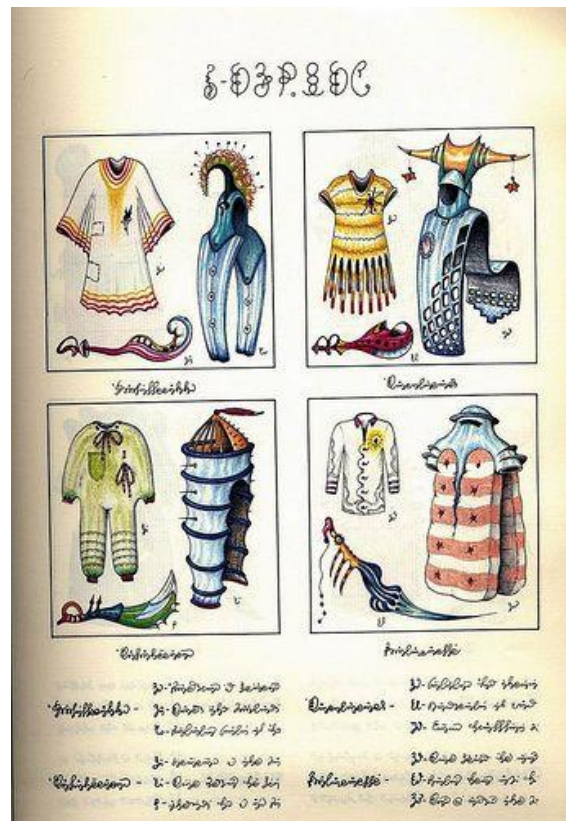


Figure 4 A page of the Codex Seraphinianus

## 1.2 Poems

Apart from the obviously-cryptical cipher works, there are also some poems which applied a hint of cryptical humour and made impression to their readers. I selected two poems using crypto-approach:

### 1.2.1 r-p-o-p-h-e-s-s-a-g-r [Edward Estlin Cummings, 1923]

This experimental poem used linguistic transmutations, typographical, syntactical and grammatical eccentricities (there is certainly more to analyse than its crypticalism approach). The complicated techniques used made it very difficult to understand by a glance (Figure 5). The poem needed to be decoded to get the message ("grasshopper, who as we look up now gathering into the leaps..."). Unlike the ciphers, this poem used normal English alphabets and symbols, but coded in a different way (in this case the order and position of letter/symbols) to create its cryptical effect.

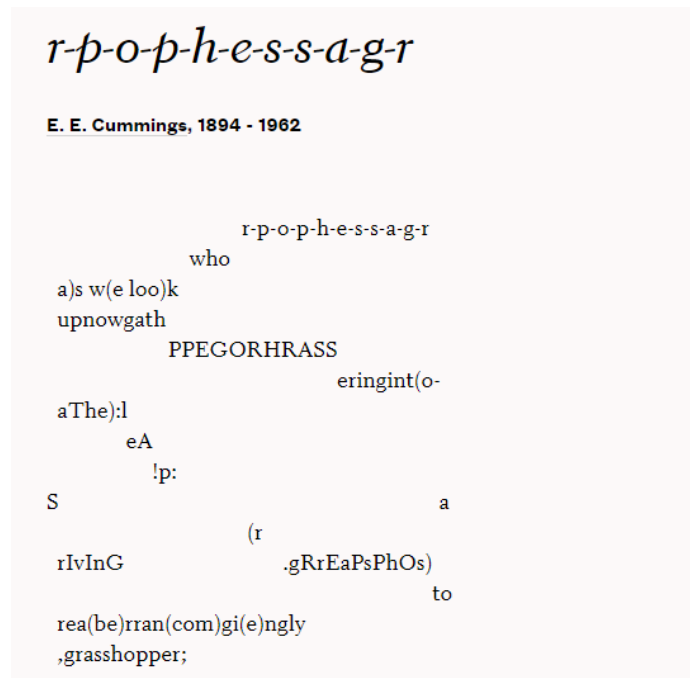


Figure 5 r-p-o-p-h-e-s-s-a-g-r

### 1.2.2 Gui Yuan 闺怨 [You Meng Niang 尤孟娘 unknown year]

Chinese characters were always very friendly to creations. I was always impressed how ancient Chinese people played with words. A lady called You wrote a poem to express her sad emotion when missing her lover. Since she was shy, she wrote it in a cryptical way (Figure 6 left part). The whole poem only contains 12 characters (on the left). However, it could be interpreted into the rhymed poem on the right. The rough translation of the first sentence is: Long night (the 夜 was drawn longer) I lied on my pillow (the 枕 lied down) and my mind and heart is awry (the '心 heart' under the '意 mind' is awry). You was not the first one who use this technique of poem writing. This technique "Shen Zhi Ti 神智体" is said to be invented by Su Shi 苏轼, a famous poet. This cryptical technique is still used in poem puzzles during some Chinese festivals nowadays.



Figure 6 A Shen Zhi Ti Poem - Gui Yuan



## 2. Stegano-works

Compared to crypto-works, stegano-works seems more applied to various areas. I selected some paradigmatic examples of body, text, painting and music.

### 2.1 Tattoo

Steganography was originally invented for the communication of serious messages. In the past, there has been a time when slaves or prisoners were used for message delivery. One of these delivery methods is: tattoo the message on the bare head of a prisoner; wait his or her hair to grow long; then send him or her to the destination where the receiver can get the message by shaving the prisoner's hair (Figure 7). Although this was not meant to be an artistic activity, I found this approach in some way inspiring. It well-used the properties of human hair (growth and coverage) as a powerful medium to convey the message.

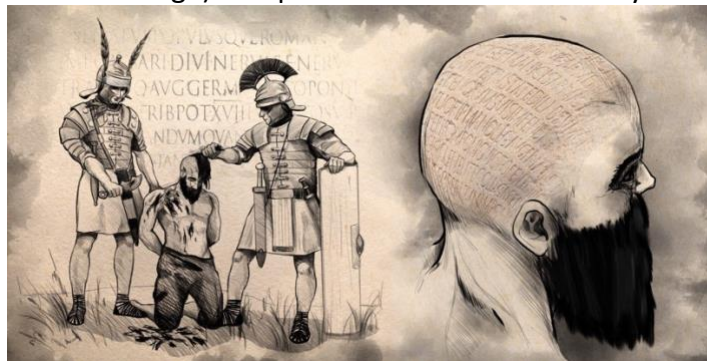


Figure 7 Tattoo used to deliver messages

### 2.2 Texts

#### 2.2.1 Acrostic Poems

Acrostic poems are poems which contain hidden messages besides its content. Most commonly the messages are hidden at the first or last column of letters. There are other varieties as well. These poems are regarded as stegano-works because it requires a special way to realise the presence of the hidden messages. Take an example of Marvin Brato Sr's \$\$ An Icon Is Dead (Figure 8), The first column spells out 'Michael Jackson'. Here are some other acrostic poems for reference (link in Reference):

- Paul Hansford (Stroud) - William Blake [1794] (London) - Lewis Carroll [2012] (A Boat, Beneath a Sunny Sky) - Lewis Carroll [1861] (Acrostic) - Edgar Allan Poe [1911] (An Acrostic)

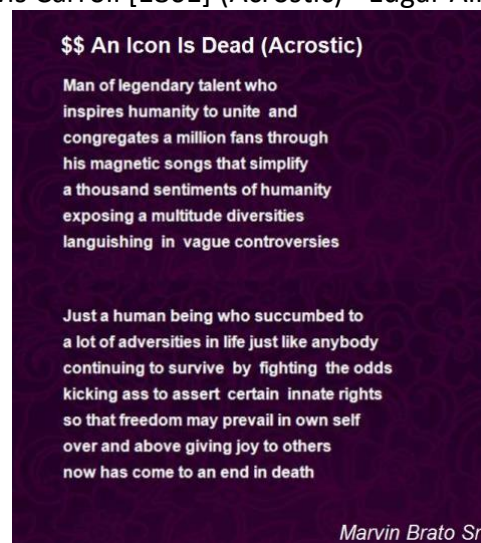


Figure 8 Marvin Brato Sr - An Icon Is Dead

### 2.2.2 Tricky text graphs

Apart from hiding text in poem, there are also stegano-works using graphical presentation to hide texts. Figure 9 looks like a contemporary painting by a glance, but if you look at it from a near horizontal angle, it is actually crossing texts. The autostereogram in Figure 10 hid a "JAM" in those random codes (it requires special way of observation – see reference).

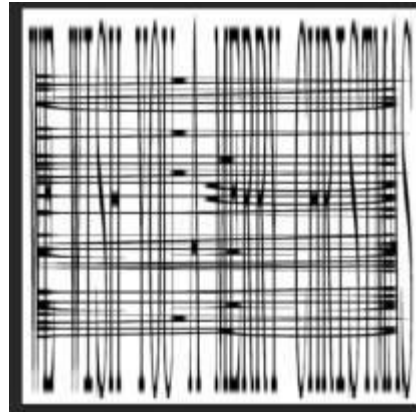


Figure 9 We wish you a happy merry Christmas and a happy new year

[illegible]

Figure 10 Autostereogram - JAM

## 2.3 Paintings

As we go closer to graphs, I would like to briefly discuss some paintings which used stegano-approach. Please keep in mind, since the interpretations of these stegano-work all came from the observers, the original intentions of these works are not fully confirmed.

### 2.3.1 Bacchus [Caravaggio 1596]

New technology discovered that Caravaggio made a very small self-portrait on the light reflection of the left corner bottle of this painting (Figure 11). It is an unexpected and impressive way of signature his work.



Figure 11 Bacchus with painter's self-portrait signature

### 2.3.2 Netherlandish Proverbs [Pieter Bruegel the Elder 1559]

This is a special painting which I remembered from a museum trip (Figure 12). Although its name kind of "ruined" its steganobility, this work contains many hidden information. It's name certainly grabbed people's attention to analyse it. People who have certain knowledge (for example a Dutch) get the messages better than those who know nothing about Dutch proverbs. Thus, it is probably better regarded as a crypto-work instead of stegano-work.



Figure 12 Netherlandish Proverbs

### 2.3.3 The Last Supper [Leonardo da Vinci 1490s]

In 2003 a musician found there are a "bread music code" in The Last Supper painting (Figure 13). The music encoded sounds like those you could hear in a church.



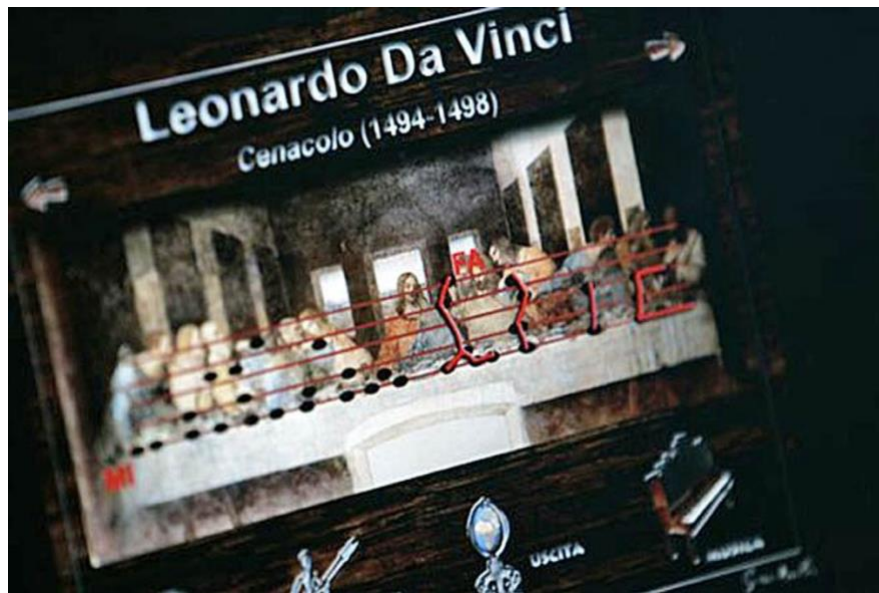


Figure 13 The Last Supper and music codes

## 2.4 Music [examples in appendix links]

The last example was a good transfer from painting to music. Sometimes music composition is very much like coding. Therefore, it is not surprising to find out artists using music to code messages. I selected three examples of message coding with music:

### 2.4.1 Signature motif

Earlier in this essay we already discussed a composer who likes cryptograms. Edward Elgar used a G-E-D-G-E motif to write an Allegretto for the Gedge sister. Besides this, many famous composers seem have used a signature motif in their pieces. For example, Johann Sebastian Bach (B-A-C-H) and Dmitri Shostakovich (D-S-C-H). As traditional composers work with notes like writer work with letters, it's easy and fun for them to sign their works with their 'motif signatures'. For more motif usage for music motif, please check the reference link – Bach motif.

### 2.4.2 Backmasking

Backmasking is a recording technique with simple principle. It is developed and grew with the technology which abled the reverse tape effects. A message is recorded and played backwards for analysing; after analysing, similar syllables were generated which assemble the feature of the reversed sound; the generated new text is then recorded normally to 'backmask' the wanted message into a music. However, the interpretation of backmasked messages is controversial when the original intention of the author is unclear.

### 2.4.3 Steglbiza 2016

A more modern technology which code messages into music is called stegl biza (Figure 14). It used a typical type of music as medium - ibiza music. The coding system works a bit like Morse code and embedded to the trace-like tempo of ibiza music.

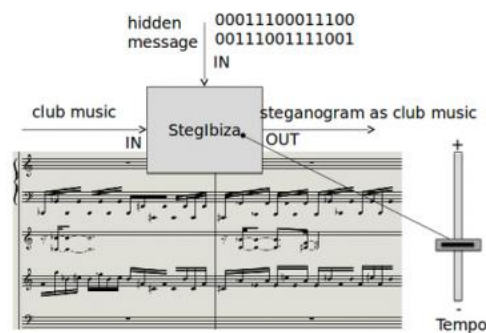


Figure 14 Steglbiza

### Overall discussion

In a general way, crypticalism was more or less used in all artworks, because artists usually don't directly say what they want to say but express it through other things. The works in this essay went to a less general way, to a bit extreme extent, appreciated the creativity of hiding. Exposed messages almost always grab people's attention at first, while the hidden messages have the power to keep people's attention and trigger people's imagination until or beyond their discoveries. Practically, in our creation of artworks, crypticalism is a powerful technique to grab the curiosity of audience by challenges. Puzzles are fun, hope you enjoyed this journey of crypticalism.

### References and links:

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- Sams, E. (1979). Musical cryptography. *Cryptologia*, 3(4), 193-201.
- BBC article about music cryptography:  
<https://www.bbc.co.uk/music/articles/cb7ac9cf-207e-4244-8302-2436f2c2ba5a>
- Backmasking, a controversial analysis:  
[https://www.youtube.com/watch?v=NCa\\_zXzXdp0](https://www.youtube.com/watch?v=NCa_zXzXdp0)
- Morse's story as artist and inventor: <https://www.youtube.com/watch?v=RLfZ3Qle-PM>
- Acrostic Poems: <https://www.poets.org/poetsorg/text/acrostic-poetic-form>
- Steganography: <https://securelist.com/steganography-in-contemporary-cyberattacks/79276/>
- The Last Supper bread music: <https://www.youtube.com/watch?v=1NOAiXdaVkM>
- Bach motif and music cryptogram: <https://www.youtube.com/watch?v=CiS8gbkDISY>
- Autostereogram reading: <https://en.wikipedia.org/wiki/Autostereogram>
- Ebooks of the voynich manuscript and codex seraphinianus:  
<https://www.holybooks.com/voynich-manuscript-codex-serahinianus-pd/>