

Independent Project

Understanding how to Decipher Ancient Texts

Abstract

I shall be delving into the vast world of decipherment, its complexities and its fascination with the people who spend their time cracking these ancient codes. I will be focusing on semiotic theory and how it can be useful when deciphering an unknown text, and I'll be giving some examples of semiotics and symbolism that can be represented through other forms, not just through language. Also, I will include a description of the Mayan glyphs to give an example of firstly how different an ancient language works compared to today's modern languages, and secondly how decipherers would go towards understanding the secrets of an ancient civilisation by understanding codes used centuries ago. I will be researching the secrets of how decipherment can be done, are there certain steps taken to understand what was written on these tombs, walls, stela, etc. We will discover the ways people have unlocked the secrets of the ancient past by calculating what the ancients have written.

I will be giving examples of famous decipherers that have greatly helped in our understanding of the ancient world and how their genius has gone to inspire many decipherers around the world to make their mark on unlocking ancient secrets.

It's no easy task to decipher an ancient text, there are many still out there un-deciphered and are confusing the minds of linguists, archaeologists and whoever gives themselves this task to hopefully uncover incredible knowledge of the past, I hope by understanding how people have gone forward to decoding these texts, I will have a better understanding and an open mind when studying ancient languages.

Introduction

It has been difficult to find an ancient language to study that has both enough information surrounding it yet also still confuses the minds of decipherers today. I have made it my task to understand what has already been uncovered about the language and what makes it so complex. Furthermore, finding the right sources for my work has been difficult as many decipherment books can be very complex in their analysis of a language, I will write with simple language and detail and depth that is understandable to both people who want to learn or have a curiosity of what decipherment entails, or if you are already an expert on the subject, I hope all, after reading, will leave with a better understanding of the world of decipherment.

Deciphering an Ancient Language

Hieroglyphs have taken centuries to crack, we always had the ability to read classical Chinese text, and many texts are still unknown to us. It is like history is now hiding secrets from us and many are very curious to know the meaning, and even dedicate themselves to understand secrets from the

past. A common misconception is that decipherment has the same meaning as cryptography or cryptanalysis, this is incorrect as both are a science of protecting information by coding it, a piece of text becomes a code, decipherment is an operation performed on an unknown message.

A message requires two components, a script (a writing system) etched, inked, visual symbols are called glyphs, the meaningful units we are trying to identify among these glyphs are called graphemes (word). The second element needed is a language, if there is no language underlying the symbols at all, there is no linguistic message to decipher. To unearth text meaning, many try and match pieces by comparing texts and seeing what is the best fit. It also invites predictions when texts are found in the language. Thinking like this brings a fresh perspective and starting point when thinking of how to decipher.

The old Greek Root for writing “graph” means “scratch”, like scratching symbols into rock and clay.

Graphemes are written units; a letter or several letters that represent a sound (phoneme), the written marks are called glyphs, a readable character for writing. Little marks called diacritics can modify those glyphs. Small symbols next to the glyph that means it is pronounced differently, for example, here’s an “ö” with a nasal mark, telling you to pronounce it through the nose.

Diacritics are often simplified or miniature versions of other glyphs, so that little nasal mark comes from the letter “n” put atop another character.

A single grapheme can be written with various glyphs, these glyphs are called allographs “other scratches” of the original grapheme. A set of graphemes that are used together in writing make up a script, together with the way it encodes or represents language is a writing system, for example, the English alphabet is the script and represents the English language as every word is made including letters from that alphabet.

Graphemics or Graphematics is the linguistic study of writing systems, like the use of certain symbols for certain sounds for certain meanings, or the differences between writing systems, the basic components, i.e. graphemes.

And then there’s Graphetics, which is the study the shape and compositions of letters such as Chinese character strokes, or the mechanics of human handwriting. The word “writing” can mean any of these.

When discovering a new text, there are certain steps to be taken.

Firstly, you count how many symbols are in the script.

Secondly, compare known systems

- Alphabet count: 10 – 40
- Syllabary count: 41 – 99
- Logophonetic count: 100+

Of course, this algorithm doesn’t pull us out of the dark, but it gives a starting point, we can identify script types, list symbols, we can then use these lists to identify the symbols when they show up in other texts. Even though a script is unknown to us, this is a clever way to a strange familiarity with it.

In the first step to examine the process of translating, we must accept that even though the translation is the basis of linguistic activity, Susan Bassnett-McGuire, a translation theorist believes that translation “belongs most properly to semiotics”.

Edward Sapir had claimed that ‘Language is a guide to social reality’, he believed that for human beings, language has become the form of expression for each civilisation. The society's language habits depend on its experience, and each society represents a different way to live life.

Semiotics and Structuralism

Semiotics is the study of signs and symbols, symbols represent a mental code which frames cultural reality, in some civilisations and cultures, especially those of centuries ago, you might have to be a part of that culture to truly understand the signs given.

Symbolism is a mode of communication, it can convey information and meaning to their viewer. A big question for us archaeologists is how we can access this meaning which is encoded in symbolism of past peoples. It's very difficult to get access to some meanings, especially early ancient civilisation symbolism. We can see symbolism represented in many forms such as figurines and in writing. There are multiple approaches needed to deal adequately with human symbolism, must keep things in mind such as ethnic identity, political ideology, technological knowledge, and religious imagery. When finding an artifact, it's important to know the area it was found, for example, if an engraved rock was found at a religious area could it indicate what it represents? Also, a linguist of that engraved language would have the skills to hopefully answer this question.

Peircean Semiotics

Peirce argues that there are three elements to semiotic theory.

- Sign: Something perceived by the interpreter
- Object: Subject matter of sign (exists beyond the interpreter)
- Interpretant: Meaning of the sign (connection between sign and object made by the interpreter)

Mieke Bal and Norman Brys describe semiotics theory as antirealism, and that the culture of humans are made up of signs, all standing for something other than itself, and people inhabiting a culture busy themselves trying to make sense of the sign around them. The basis of semiotics is these factors involved in the permanent process of sign making, interpretation, and development. It is an integral tool that helps archaeologists understand the process of cultural activity from years gone by. Bal and Brys see the importance and a large presence of semiotic theory in ancient art.

From a certain perspective, semiotics has been present in language history. It's no doubt that the development of creating a language both creative and very evolutionary, is incredibly revolutionary in human development, some believe the start of a writing system or a means of communication between people is the start of civilisation. Many people have a different opinion on what they believe the start of a civilisation could be, and the start of communication is what some believe was the key to such successful, long-lasting civilisations in history. But it is not the only language that can be used to communicate, there's also a large presence within symbolism. For example, artifacts can be as much a clue to the ancient past as its writing forms. Ancient Egyptians used baskets with

handles, we know this as examples have been excavated, also this helped towards deciphering the hieroglyph “k” which is represented by a basket.

Another example of symbolism is figurines, what do they represent from the time they were created. An artifact is a great form of symbolism that indeed can reflect the past and brings it to life. For example, during the Tang dynasty when the first and only female emperor of China, Wu Zetian was in power, many figurines were made of women riding horses, which can tell archaeologists that it was a somewhat liberating time for women during this period, compared to the gender inequality before and after Wu Zetian's reign. Another example of this is the figurine “Venus of Willendorf”.

Venus of Willendorf

The Venus of Willendorf is one of many similarly shaped, very feminine statues that dates to the Upper Palaeolithic Period (20,000 to 30,000 BCE). It's a faceless piece of artwork, discovered in 1908 by an archaeologist called Josef Szombathy at a Palaeolithic dig site near Willendorf, Austria. This is a very important figurine as it is one of the earliest known examples of the human figure. Not much is known about its cultural significance, its origin, or how it was even created. There's an emphasis on the breasts and fairly large hips which make academics believe that it could've been created as a fertility symbol. It could also represent a God of fertility. It's currently at the Naturhistorisches Museum, Vienna, Austria.

Mayan Glyphs

The Mayan glyphs are a Mesoamerican language used by the Mayan civilisation from the Yucatan Peninsula, which today is the southeastern part of Mexico.

From first glance, the language looks like a series of detailed pictures, but they aren't logographs, they aren't a rebus, but these consist of a block of sound symbols that spell out the meaning of the pictogram. This is called sound writing. These aren't logographs that happen to be read as sounds, they are sounds. Sounds capable of writing any syllable in the language. In a full syllabary like the classical Maya script, there are separate characters for just about every possible syllable in the language. No longer is there a need to invent new word characters, you can make do with a much smaller set of syllable characters.

The Mayan syllabary always starts with a consonant and ends with a vowel, for example, ba, be, bi, bo, bu... and so on. All syllabaries end in vowels, yet there are words in the language which end in a consonant, like “Balam” which means jaguar, therefore how was this written?

It was written with an extra syllable, they used a syllable that just repeats the last vowel so that we know we can ignore the final vowel, this gets called the “echo vowel”. So “Balam” is spelled “Balama”.

Amate Codex

Decipherment is a harder feat to translation when translating all the information is given to the

This rock was named The Rosetta Stone, it was inscribed with firstly at the top, fourteen lines of

ancient Greek. The slab is 3ft 9in (1.1m) high and 2ft 4in (72cm) wide. There's a cartouche or oval enclosure to be seen in the hieroglyphic text, it contains Ptolemy's name and is repeated six times throughout the text with small changes. Academics called these oval enclosures "cartouches", which is the French word for paper cartridges or rolls that were used to contain powder for muskets, as the ovals resemble these rolls.

Hieroglyphic Break Through

The officer who found the Rosetta Stone was a member of a French expeditionary force to Egypt, copies of the inscription were sent to Paris. Before this famous rock was named Rosetta Stone it was named after where it was found: El-Rashid (North East of Egypt). Whilst examining the Greek text on the rock, academics saw that it was carved to commemorate the coronation of Ptolemy V and it was commissioned by priests of Memphis (South of Cairo) in 195BCE. But it took years before the fourteen lines of Egyptian hieroglyphs were deciphered.

A French linguist at eighteen years old named Jean-Francois Champollion had attained a copy of the Rosetta Stone inscriptions in the year 1808. He was fluent in ancient Greek and went on to compare the hieroglyphs in the oval enclosures, which was believed to have contained the names of royals. Scholars had analyzed and identified Ptolemy in ancient Greek and Demotic Egyptian. The young linguist had assumed that the name should be read in alphabetical order, and each hieroglyph represents a separate letter. By reading from right to left the name p-t-o-l-m-y-s was read. From there he could write a small script.

When Champollion saw the copy of an inscription that contained the name, Cleopatra. From this, he was able to make a longer sign list that would enable him to read names on other Egyptian monuments. Champollion had realized, hieroglyphs used signs that represented both ideas and sounds which he examined. After then studying the language grammar, in 1822, he had made his discoveries public.

The Discovery of Mayan Glyphs

The great Von Humboldt rediscovered the Mayan glyphs after being forgotten for a hundred years. He went on to reproduce pages of a manuscript from the Dresden library, up until then it was completely forgotten about. He first believed they were Aztec glyphs because of the fairly large drawings similar to Aztec texts but became aware the manuscripts were something new. It was obvious that this Mayan codex was some sort of almanac, luckily Humboldt had a large amount of knowledge of its background. Humboldt had printed a list of Toltec names from Chiapa (southern Mexico) and could see that they were very different from Aztec names.

He was so close to realizing that the Maya culture was a distinct one. After 12 years of researching, he had published the Maya stone inscriptions. Their inscriptions had come from Palenque and were copied on the orders of the Guatemalan government, by a Spanish army officer, his name was Antonio Del Rio. He went on an expedition to find these inscriptions in 1787 for Charles III of Spain. The officer sent his report to Madrid, but truly understood the decipherment published after it was translated to English in 1822.

There were many samples of Mayan manuscripts available in the same period when Champollion had deciphered some Egyptian hieroglyphs which sparked the ambition of an American called Constantine Rafinesque. He had written and sent two letters to Jean-Francois Champollion as he saw the task to decipher Mayan text was similar to Champollion's approach to deciphering Egyptian hieroglyphs. Like Coptic is to Egyptian, perhaps pre-conquest Mayan may still be spoken in the area.

He was on the right track, but then Champollion passed away before Rafinesque sent him a third letter. Rafinesque dies a short few years later. But there was a huge discovery of an alphabet that was taken from an actual Mayan using actual Mayan signs. You'd think this would have solved all problems, but it wasn't that easy.

The person responsible for this discovery was Brasseur De Bourbourg, a parish priest in Guatemala. In Guatemala he learned the language Quiché, it was the local Mayan language. He published a pre-conquest drama and had then translated the text of this religious epic that was written in Quiché but with Spanish letters, from a previously unknown manuscript. His discovery was made in a library in Madrid. This manuscript of the Maya and their civilisation was written by Diego de Landa a Franciscan friar who later became a bishop. But the manuscript found by Brasseur was not the original from 1562, but a copy that had been summarised that was made around a hundred years after. Yet it still gave two great pieces of information about the Mayan script.

The first would be the calendar, it led to the appreciation of "Maya astronomical knowledge and dating techniques". The second is the alphabet, it has been the acknowledged guide for reading Mayan glyphs. "When Landa said a letter (a,b,c, etc.), he will have meant a single sound, but he will have called it by its Spanish name (for example 'bay' for B, 'élé' for L)". Like our own, the Mayan script usually has "more than one sign for the same sound". Some glyphs seemed to have one sign, some had two, some even could contain four.

The Decipherment of Linear B

Linear B is an ancient language, it is a syllabic script that was used to write Mycenaean Greek, which is the earliest proven form of Greek. This ancient script "predates the Greek alphabet by several centuries". It had no forms of phonetic value, and was not used as "word signs in writing a sentence".

Mycenaean Greece refers to a civilisation that had flourished in Greece between the years 1600 - 1100 BCE. This civilisation seemed to have collapsed about the same time many other ancient civilisations over the Mediterranean. The Dark Ages emerged after the Mycenaean period when a "large scale cultural and economic production and complex social organization seems to have all but vanished". It is because of these Dark Ages which came of a cultural Tabula Rasa, emerged the culture and institutions we associate with Ancient Greece today. Through excavating Mycenaean palaces and before discovering the decipherment of Linear B, "the Homeric poems, the Iliad and the Odyssey were amongst some of the earliest documents found from ancient Greece which has preserved the Greek language at a fairly early stage of its development.

Michael Ventris

During the early 20th century, archaeologists had excavated some incredibly well-known sites of ancient Greece, mainly Pylos and Mycenae on the mainland of ancient Greece, and Knossos on the island of Crete. A large number of clay tablets were found and were inscribed with an unknown script. It was "significantly different from any other script known at the time". It clearly showed the archaeologists that there were at least two versions of this type of writing, Linear A, and Linear B. Linear A still has not been deciphered to this day.

"The decipherment of Linear B opened up, and indeed created, a whole new branch of scholarship" - Dr Torsten Meissner (Senior lecturer in Classics, Philosophy and Linguistics)

Michael Ventris was an English architect, classicist, and philologist which had deciphered Linear B, Ventris was "able to show, ever more clearly over the months that ensued, that the language behind the script was Greek". He stated "a difficult and archaic Greek, but Greek nevertheless". He lacked the knowledge of Greek linguistics and philology so he turned to John Chadwick in July 1952, he was a new Classics lecturer at the University of Cambridge, Ventris asked for his professional opinion on his work. Chadwick was an "outstanding classical scholar" that had experience in code-cracking during the Second World War. He gave Ventris a helping hand to advance on his original decipherment and could de-code the "historical linguistic background" and give his interpretations of many different tablets.

Because of Chadwick's help, Cambridge was soon established as one of the "world's leading centres for Mycenaean studies". He carried on working on Linear B up until his death in 1998.

There are still missing parts of the Mycenaean world. Archaeologists and historians still question what were the relationships between the different sites with other ancient civilisations?. How Ventris and Chadwick worked together with their specialties within their disciplines had laid down the foundations for other scholars to carry on their work one piece at a time.

Conclusion

After all this research I have conducted to improve my knowledge on this subject, I have picked up many skills and have a broader understanding to go forward in my research with. I have understood that deciphering can take years, even centuries to crack, it's not the task for someone with no patience. I have discovered that there are many skills required for such a task, there needs to be a great background knowledge for the civilisation or society that the texts originate, it can contribute greatly when deciphering. I have learned of decipherers that have contributed greatly to linguistic history and unlocked secrets of the past. Collecting information about Mayan glyphs was definitely an eye-opener, it really gave me a great understanding of a new way of reading which I found very intriguing and interesting. Semiotics and structuralism were a very interesting theory to get a more in-depth understanding of, and I'm happy that I've studied and gathered references as they will serve useful in future projects. The study of artifacts was very interesting to me as that is one of the areas of Archaeology I enjoy studying. The Rosetta Stone fascinates me as it combines two great interests of mine as it's the study of an artifact but also ancient language. Also, the Venus of Willendorf is incredibly fascinating and beautiful and I'd gladly do more research on the ancient figurine.

From my findings I've seen, you can train yourself how to decipher but having a strong historical knowledge and the ability to write in an academic form is key.

To conclude, whilst doing this assessment it has absolutely opened my eyes to the world of decipherment. I've learned about which areas I can improve on to become perhaps successful in the field of decipherment, or at least how to research the field of decipherment and become more knowledgeable on the subject, how to use the information to help me in my own archaeological research.

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