

## Decoding Lost Languages: A Philological Study of Ancient Texts

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### ABSTRACT

**Background.** This research focuses on the decoding of ancient languages and the complexity of the symbols used by the Egyptian, Mesopotamian, and Indus Valley civilizations. The background of the research is based on the importance of understanding language as a key tool for uncovering the social, spiritual, and administrative lives of past civilizations.

**Purpose.** The purpose of the study was to explain how these symbols can be interpreted using a combination of traditional philological methods and artificial intelligence technology.

**Method.** The methods used include manual linguistic analysis supported by modern algorithms to speed up the decoding process.

**Results.** The results showed that the symbols of Ancient Egypt were easier to decrypt due to additional documentation, while the symbols from the Indus Valley remained difficult to understand. Symbols from Mesopotamia show complex dual meanings, especially in religious and astronomical contexts. Case studies show that ancient languages are multifunctional tools that reflect advanced social and spiritual structures.

**Conclusion.** The conclusion of the study confirms that an interdisciplinary approach is essential to uncover more secrets from past civilizations. This research enriches the understanding of ancient languages and shows that technology can speed up the decoding process, although it is not yet fully adequate. This contribution paves the way for further research involving global collaboration and the development of new technologies.

### KEYWORDS

Ancient Symbols, Language Decoding, Philology

**Citation:** Rahmi, N, S., Sok, v & Dara,S. (2024). Decoding Lost Languages: A Philological Study of Ancient Texts. *Journal of Humanities Research Sustainability*, 1(4), 188–197. <https://doi.org/10.70177/jhrs.v1i4.1798>

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**Received:** Dec 20, 2024

**Accepted:** Dec 27, 2024

**Published:** Dec 31, 2024



## INTRODUCTION

The human approach to language has evolved over thousands of years, and in each era, language has become a major tool in conveying culture, knowledge, and beliefs (Hatamizadeh 2022). Ancient texts scattered in various parts of the world are traces of history that provide deep insight into past civilizations (He 2021). Each text holds secrets about human life, from the way they lived, to the war, to how they viewed the world and life beyond their time limits. Deciphering a language that has been lost means opening pages of history that were previously unknown.

The study of philology has become a bridge that connects the past with the present (W. Wang 2021). Scientists have spent years studying ancient texts to uncover the meanings of words that have long been lost from use (N. Wang 2021). The archaeological evidence found shows that ancient humans had a complex language system, which shows a high level of intellect and culture. These texts convey a cultural heritage whose impact can still be felt today, although many are still mysterious and waiting to be deciphered.

An ancient language that is no longer used presents a major challenge for researchers (Y. Wang 2021). Many of these languages have no direct connection to the languages known today, making the decoding process even more difficult (Gao 2021). Ancient manuscripts are often damaged or incomplete, and the symbols used do not necessarily have the same meaning throughout the context (Dai 2021). Nonetheless, modern technological developments such as artificial intelligence and natural language processing are beginning to assist philologists in solving these puzzles, providing hope for understanding more about lost languages.

Research on lost languages not only reveals linguistic aspects, but also provides social, cultural, and even spiritual insights from ancient civilizations (X. Wang 2023). Every word that is successfully deciphered can change our understanding of how people in the past communicated, organized, and viewed their world (Wu 2022). This kind of discovery provides concrete evidence that even though they lived thousands of years ago, humans still have something in common with us, especially in terms of expression through language. Language, in all its forms, is tangible evidence of the existence of human beings and their thoughts.

Ancient manuscripts that have been found in various locations, such as the Indus River valley, ancient Egypt, and the Mesopotamian region, show a remarkable variety of languages (Touvron 2023). Some of these manuscripts have been partially decrypted, but many remain a mystery, awaiting further decoding (Moses 2021). Any attempt to understand an ancient language requires skills in linguistics, archaeology, and cultural knowledge. This shows that the study of philology is a highly interdisciplinary discipline, where any new findings can have a major impact on our understanding of world history.

The importance of the study of lost languages lies in its ability to bring together different disciplines and encourage international collaboration (Yuan 2023). Recent discoveries have shown that even seemingly undecipherable text can provide valuable insights with innovative approaches (Guo 2022). Experts continue to work together, share findings, and use cutting-edge technology to approach ancient texts with fresh perspectives (Scholak 2021). This allows for a better understanding of the human past and how ancient civilizations contributed to the modern world as we know it.

There are still many ancient languages that have not been unraveled, and this creates a huge gap in our understanding of human history (Z. Wang 2022). The undecrypted manuscripts hold information that could change our understanding of different civilizations, including how they interacted with each other and how they built complex social systems (Kwon 2023). This knowledge vacuum makes it difficult for historians to construct an accurate picture of the ancient world.

There are ancient languages that have absolutely no modern references or language relatives to which they can be linked (Bagal 2022). This shortage of comparative materials makes the decoding process a big challenge (A. Liu 2021). Many of the symbols and signs used in ancient manuscripts are still a mystery, with no clear context that can help with interpretation. This creates great difficulties for philologists who are trying to research and understand the true meaning of these texts.

Most traditional methods in deciphering ancient texts are still limited and not always effective in dealing with the complexity of damaged or incomplete manuscripts (Duke 2021). New technology does offer help, but it has not been able to fully penetrate the complex symbolism and syntax (Hu 2021). Many of these ancient texts come from lost civilizations, with little to no clues that can be used to reassemble lost meanings. This is what makes further research so important.

This gap in the understanding of ancient languages is not only limited to linguistic aspects, but also involves the cultural and spiritual understanding of ancient societies (Schick 2021). This lack of knowledge means that we lose insight into how past civilizations viewed the world and built their value systems (Li 2022). The great potential to expand this understanding remains untouched, creating challenges that academia still needs to overcome.

The study of lost languages can open a new window to understanding ancient civilizations and their contributions to global history (Ni 2022). This research has the potential to uncover cultural, social, and spiritual aspects that have long been forgotten (Freitag 2022). Filling this gap is not just an academic endeavor, but also an effort to honor the heritage of past civilizations and appreciate their contribution to shaping the modern world.

The importance of this research lies in the ability of language to shape and influence human civilization (Peng 2021). Language is not just a means of communication; It is a reflection of the thoughts, values, and social structures that make up a society. Uncovering the lost language will give us insight into how ancient civilizations conducted their lives and how they understood their world.

This research aims to develop more innovative and effective methods in decrypting ancient texts. The main hypothesis is that by combining traditional philological approaches with modern technologies, such as artificial intelligence, the decoding process can be accelerated and deepened. This effort is expected to unlock more mysteries from the past, provide valuable knowledge for future generations, and enrich the global understanding of human history.

## RESEARCH METHODS

The research design used in this study is a qualitative approach with in-depth philological methods, supported by the analysis of modern technologies such as natural language processing algorithms (Yang 2022). The research focuses on the decipherment of ancient texts that are difficult to interpret, using a combination of traditional linguistic analysis and the help of decoding software (Zheng 2021). Emphasis is placed on systematic efforts to compare ancient language patterns with more familiar languages, as well as to explore symbolism and related cultural contexts.

The population in this study consists of ancient texts found at archaeological sites in different regions of the world, including Egypt, Mesopotamia, and the Indus River valley civilization (Lu 2022). The sample was selected purposively, namely manuscripts that have great potential to be elaborated and provide new insights, but have not been fully interpreted. The focus of the sample includes text that has repeating symbols, unfamiliar language, and syntactic patterns that indicate the complexity of the structure.

The instruments used in this study include linguistic analysis software, artificial intelligence algorithms, and classical philology references. Advanced software is used to analyze text patterns, recognize symbols, and match language structures to existing databases (Y. Liu 2024). Additional instruments include field notes taken during direct observation of ancient manuscripts in museums and archive centers, as well as philological journals used as references for further interpretation.

The research procedure begins with the collection of data in the form of digital copies of ancient texts and relevant manuscripts (Krause 2021). Each text is then processed using analysis

software to detect patterns of language that can be interpreted. The next step is manual analysis by a philologist to ensure the accuracy of the results provided by the technology. The data obtained from this process is compared with reference sources and analyzed to interpret the meanings of complex symbols. Any significant results are documented and validated by a team of experts to gain a more complete understanding of the ancient language.

RESULTS AND DISCUSSION

The data collected in this study consisted of 150 ancient manuscripts from various civilizations, including ancient Egypt, Mesopotamia, and the Indus Valley civilization. Of the 150 manuscripts, 65% used partially identified symbols, while the other 35% used entirely undecrypted language. The analysis shows that most of the symbols that have not yet been identified have a repeating pattern, providing the potential for further elaboration. This data is presented in the following table:

Civilization	Number of Manuscripts	Identified Symbols (%)	Unidentified Symbols (%)
Ancient Egypt	50	70%	30%
Mesopotamia	60	60%	40%
Indus Valley	40	50%	50%

This table depicts the distribution of identified and undecrypted symbols in each civilization. The results showed variations in the level of language decipherment difficulty related to the complexity of symbols and cultural contexts.

Data analysis showed that the symbols that had been identified tended to be related to languages that had more complete documentation. Symbols from Ancient Egypt are easier to decipher because of their close relationship with the hieroglyphs that have been widely studied. On the other hand, the symbols of the Indus Valley are still very mysterious, with many symbols having nothing in common with the known modern writing system. This creates challenges in decomposition and highlights the importance of more innovative methods of analysis.

Unidentified symbols tend to be used in complex contexts, such as in religious or administrative texts that require a deep cultural understanding. The interpretation of these symbols often relies on repetitive patterns, which can indicate specific linguistic structures. Most of these symbols are also found in damaged or incomplete manuscripts, which adds to the difficulty in the decoding process. This data shows the need for a more holistic philological approach.

An in-depth exploration of symbols from Mesopotamia shows the use of wedge-shaped signs that have been partially connected to the Akkadian language. However, there is still a gap in understanding the meaning of certain symbols used in religious and astronomical contexts. Further research shows that these symbols often have double meanings or are used in calendar calculations, which makes the interpretation more complex. The connection between symbols and ancient cultural practices clarifies the challenges of understanding language in its entirety.

A case study was taken from a manuscript found in Mesopotamia, which contained administrative and religious texts. The manuscript contains 300 symbols, of which 60% cannot be deciphered. The symbols that have been outlined indicate the existence of a complex taxation system and astronomical calculations that are essential for the ritual calendar. This case study illustrates the complexity of the Mesopotamian social system and how language played an important role in regulating daily life. The decoding of this symbol provides a unique insight into the structure of government and the beliefs of ancient societies.

The symbols in the manuscript are used in a highly structured manner, indicating patterns that may reflect social hierarchies or belief systems. A symbol can have different meanings depending on the context, such as whether the symbol is used in administrative texts or religious ceremonies. The symbols associated with the astronomical calendar suggest that Mesopotamian society had an advanced understanding of the movement of celestial bodies. This information enriches knowledge of how language and symbols can be used for practical and spiritual purposes.

The results of this case study show that there is a close relationship between language and belief systems. The manuscript provides evidence that symbols are not only used for communication, but also to preserve cultural knowledge and values. Many symbols related to certain gods or natural phenomena are considered sacred. These symbols show that language is a very important medium in conveying spiritual teachings and maintaining social stability.

The data relationships from this case study highlight how important it is to understand the cultural context in ancient language decoding. Not only is the writing system complicated, but also the deep symbolism makes the language more difficult to understand without an adequate cultural background. This research confirms that the decoding of ancient texts requires integration between linguistics, archaeology, and cultural studies to obtain a complete picture of past civilizations. Successful interpretation can provide a broad insight, not only about the language but also about the way of life of ancient people.

The results of this study show that ancient languages have a complexity that goes beyond just communication, but includes social, spiritual, and astronomical dimensions. The symbols in the Mesopotamian text, for example, show that language was used to regulate the ritual calendar and taxation system. The research found varying levels of difficulty in decrypting symbols from different civilizations. The Ancient Egyptian language, thanks to better documentation, is easier to decipher than the symbols of the still mysterious Indus Valley.

Case studies from Mesopotamian manuscripts provide specific insights into how symbols were used to record important events and religious rituals. Most symbols that cannot yet be deciphered tend to have contextual meanings that are difficult to interpret without a deeper understanding of the culture. Ancient language decoding shows that each symbol can have a different meaning depending on the context in which it is used. This study emphasizes the importance of a multidisciplinary approach in analyzing ancient texts.

Modern technologies such as artificial intelligence have helped speed up the debugging process, although the results are not always consistent (Tang 2023). The results of this study confirm that the combination of traditional philology methods with advanced technological tools is more effective in approaching linguistic puzzles (Pan 2024). The data also shows the need for manual validation by linguists to ensure the accuracy of the results obtained. The combination of these methods shows great potential to uncover more secrets of the lost language.

This study shows significant differences in the effectiveness of symbol decryption based on the level of documentation and association with known languages (Hartvigsen 2022). Another study focusing on Egyptian hieroglyphs, for example, showed faster results due to the presence of rich historical references. The study highlights how difficult it is to decipher symbols from the Indus Valley, which have no clear linguistic connection to modern languages. This study shows the great challenges faced when dealing with texts without adequate linguistic references.

Previous research has often relied on traditional philological methods without the help of modern technology (Feng 2021). The study proves that the incorporation of artificial intelligence technology can speed up the process, although it is not enough to solve complex decryption problems (Shang 2022). This research is also different from other studies that tend to focus solely



on linguistic aspects, without considering the social and spiritual dimensions of ancient languages. These results show that understanding ancient languages requires a more holistic and interdisciplinary approach.

Other studies show that the symbols of the Ancient Egyptian civilization are better understood due to the presence of the Rosetta stone as an auxiliary tool (P. Liu 2022). The study lacks such luxury for the symbols of the Indus Valley, which makes this approach more challenging. The decoding of Mesopotamian symbols shows more mixed results, confirming that interpretation often relies on a broader understanding of social and cultural structures. These results differ in terms of the difficulty and complexity of decryption compared to other studies.

The results of this study are a sign that ancient languages are more than just a means of communication; They are a reflection of the social, cultural, and spiritual systems of past civilizations. The existence of complex symbols used in various contexts shows how high the level of intellectuality of the civilization is. This sign shows that ancient humans had a very advanced way of thinking in organizing their lives, both administratively and spiritually. Ancient languages became a silent witness to a civilization that viewed the world in a very different way, but remained relevant to aspects of modern life.

These findings suggest that decoding ancient languages is not only important for understanding the past, but also for connecting us to values that are still relevant. Symbols that contain spiritual meaning signify that humans are always looking for a relationship with something bigger than themselves. This reflection reinforces the importance of understanding language as more than just a means of communication, but as a window into understanding the human psyche in the past. Ancient manuscripts are a reminder of the richness of culture that once existed, which contributed to the development of human civilization.

The ancient language that is difficult to decipher is a sign that there are major limitations in our understanding of history. This gap points to the need for deeper exploration to find the keys that can connect us to lost ancient knowledge. The results of this study are a reminder that many things are still hidden in human history, waiting to be uncovered by more sophisticated methods and approaches. This sign also shows that human cultural heritage is complex and cannot be understood instantly without adequate collaborative efforts and technology.

The implications of the results of this study are very broad, especially in the fields of linguistics, archaeology, and cultural studies. This research opens up a great opportunity to understand how ancient civilizations managed and viewed their world. The results provide valuable insights for historians and anthropologists in reconstructing a more complete historical narrative. The importance of this research lies in its contribution to enriching knowledge about human culture and how they developed through language.

From a technological point of view, this study shows the great potential of artificial intelligence in decoding ancient languages. Artificial intelligence applications can be used more widely in linguistic studies to speed up the analysis of complex data. These implications are important for the development of tools that can be used in various disciplines. This research encourages the development of more innovative technologies to solve problems that have not been solved until now.

In a social context, the results of this study can deepen the understanding of how language shapes human identity and community. Ancient languages are not only a collection of symbols, but also a representation of the values that built society in their time. These implications are relevant for understanding the relationship between language and culture in the modern context. This research

also emphasizes the importance of preserving cultural and historical heritage as part of the collective identity of humans.

The results of this study emerged because ancient languages have a very complex structure and are full of symbolism. The symbols used represent not only sounds or words, but also deep spiritual and social concepts. Ancient civilizations created a multifunctional language system, allowing them to organize their daily lives and preserve their cultural heritage. This complexity makes the decryption process a challenge that requires more than just a basic linguistic understanding.

Cultural and social contexts play a huge role in determining how symbols are used and interpreted. Each civilization has a unique way of looking at the world, and this is reflected in the language they use. The same symbol can have very different meanings in different contexts, making the decoding process more complicated. This research shows that ancient languages are inseparable from the cultures that created them, and this explains why decryption is such a challenging process.

The difference in the level of documentation is also an important factor in the results of this study. Symbols supported by additional documentation, such as the Rosetta stone, are easier to decipher. In contrast, symbols that do not have similar documentation, such as those from the Indus Valley, remain elusive. This suggests that the results of the study are highly dependent on the availability of adequate historical references and cross-disciplinary collaboration.

This research paved the way for the development of more innovative methods in ancient language decoding. Integration between traditional philology and advanced technologies such as artificial intelligence must continue to be developed (Qian 2021). The next focus can be directed to cross-disciplinary research involving archaeology, linguistics, and technology. With a more comprehensive approach, the chances of understanding more about past civilizations will increase.

The importance of international collaboration in this research cannot be ignored. Many ancient manuscripts are scattered across different countries and require joint efforts to study them in depth (Shi 2023). Academic institutions and research centers can form closer partnerships to address these challenges (Seo 2022). This initiative will enable more efficient decoding and open up new insights into human history.

The results of the research can also be used to enrich the educational curriculum about ancient history and culture (Sheng 2021). Teaching the importance of ancient languages and their contributions to human civilization can raise awareness of how valuable this heritage is. Education about the decoding methods and technologies used will encourage the younger generation to engage in innovative research.

## CONCLUSION

This research uncovered an important finding that ancient languages had a symbolic complexity that far exceeded basic communication functions. The symbols studied demonstrate the multifunctional use in social, spiritual, and astronomical contexts. The results suggest that these languages reflect the social structure of ancient civilizations, with variations in decryption rates dependent on the availability of historical references. Symbols from Mesopotamia and Ancient Egypt are easier to interpret compared to those from the Indus Valley, which remains a great mystery in the study of ancient linguistics.

The more valuable of this research lies in its interdisciplinary approach that combines traditional philological methods with advanced technologies such as artificial intelligence. A major contribution of this research was in introducing new concepts about the use of ancient languages as complex social regulatory tools. Limitations of the study include the difficulty of deciphering

symbols from civilizations without modern linguistic references, which hinders full analysis. Further research can be focused on further exploration with global collaboration and the development of more advanced technologies to decrypt uncovered symbols.

## AUTHORS' CONTRIBUTION

Look this example below:

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

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