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UNDERSTANDING LINEAR A THROUGH THE LENS OF MARITIME HISTORY DURING THE BRONZE AGE

KIMBERLY MIRACLE TAN WEI YAN SCHOOL OF HUMANITIES

# Understanding Linear A Through the Lens of Maritime History During the 

 Bronze AgeKimberly Miracle Tan Wei Yan

School of Humanities

A thesis submitted to the Nanyang Technological University in partial fulfilment of the requirement for the degree of Master of Arts

## Statement of Originality

I certify that all work submitted for this thesis is my original work. I declare that no other person's work has been used without due acknowledgement. Except where it is clearly stated that I have used some of this material elsewhere, this work has not been presented by me for assessment in any other institution or University. I certify that the data collected for this project are authentic and the investigations were conducted in accordance with the ethics policies and integrity standards of Nanyang Technological University and that the research data are presented honestly and without prejudice.

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## Supervisor Declaration Statement

I have reviewed the content of this thesis and to the best of my knowledge, it does not contain plagiarised materials. The presentation style is also consistent with what is expected of the degree awarded. To the best of my knowledge, the research and writing are those of the candidate except as acknowledged in the Author Attribution Statement. I confirm that the investigations were conducted in accordance with the ethics policies and integrity standards of Nanyang Technological University and that the research data are presented honestly and without prejudice.

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| Signature of Supervisor: | NTU NTL NTU NTU NTU NTU NTI |
|  |  |

## Authorship Attribution Statement

This thesis contains material from one paper accepted for publication in the following peerreviewed journal in which I am listed as an author.

Tan, K. M. W.Y. (2022). A Commentary on Possible Linguistic Relations of Linear A, Based on the Analysis of Trade during the Bronze Age. [Manuscript submitted for publication and accepted with minor revisions by Old World: Journal of Ancient Africa and Eurasia, published by Brill].

In addition, this paper is an extension of my Bachelor's Thesis titled 'The Minoan Engima: Deciphering Linear A'. It was inspired by the methodology (in terms of the consonantal approach used in analysis with the Semitic language), from my supervisor, Dr Francesco Perono Cacciafoco's, project titled 'Giving Voice to the Minoan People'. Other than that, the rest of the methodology, including the reconstructions of the Linear A clusters, as well as the analysis of the results, were all my original contributions.

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"When life is sweet, say thank you and celebrate. And when life is better, say thank you and grow." All in all, danke to all the important people in my life and the eventful experiences presented to me. The Kimberly right now would not have been the same without you. To life, and the people around me, I dedicate this thesis.

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## SUMMARY

The language of the writing system of the Minoan civilisation in Crete, known as Linear A, dating back to the Early Bronze Age and first part of the Middle Bronze Age, is still undeciphered up till present day. Maritime trade was prevalent during the Bronze Age and therefore this study aims to understand the impact of economic and cultural factors on the language of the Minoan civilisation. This was done mainly through identifying the potential influence of the languages of civilisations in trading contact with the Minoan civilisation during the Bronze Age. Specifically, this study attempts to recognise the possibility of more than one language either having influenced or been part of the possible underlying language(s) of Linear A, in terms of vocabulary, syntax and phonology. However, due to the insufficiency of evidence and understanding of Linear A, this paper will only focus on a single factor of influence, which is that of the vocabulary. Consequently, the goal of this study is to contribute to the future decipherment of Linear A. This study assumes that the Linear A texts mainly recorded vocabulary words. Digitalised copies of Linear A inscriptions available on the GORILA database, are first transcribed using the phonetic values of Linear B. After which, the identifiable Linear A clusters are reconstructed to all possible cluster combinations, before being compared with the dictionaries of Proto-Semitic (first attested around 4000 BCE), Ancient Egyptian (first attested around 4000 BCE), and Hittite (first attested around 1600 BCE ). Ancient dictionaries were thus used, as the focus was on the vocabulary of the ancient languages. Furthermore, these ancient languages were used in areas geographically connected to Crete by sea, specifically through trade, and chronologically close to the use of Linear A, making them suitable for consideration. Analysis is made based on potential words identified in the ancient dictionaries, in relation to the orthographic similarities with the reconstructed clusters of Linear A, in order to perceive the possible relations and extent of combined influences of those ancient languages on Linear A. Out of the three languages, Middle Egyptian and Common Semitic shows the most potential as being possible influences on the Minoan language. However, the nature of this study relied largely on guesswork, and results obtained at this stage still cannot be considered conclusive. Yet, the result of this study can provide future scholars with some essential literature and materials to work with in their attempts to contribute to the decipherment of Linear A.

## CHAPTER ONE: INTRODUCTION

Ancient civilisations had their own writing system and the Minoan civilisation native to Crete, which existed from tentatively 3500 BCE to 1100 BCE, was no exception. Their writing system was known as Linear A, and had been around from an estimate of 2500 BCE (first attestation, however its use became common only in 1800 BCE ) to 1450 BCE (Oliver, 1986). Despite the many works done by scholars in this field in attempts to decipher it, Linear A has still remained practically undeciphered up till present day due to the enigmatic language of the Minoans. However, this writing is assumed to have been used mostly for administrative and religious purposes. Aside from the Linear A tablets found predominantly in Crete, the presence of some tablets have also been demonstrated in some islands in the Aegean such as Thera, Kea, Kythera and Melos, as well as in Southern Laconia of mainland Greece (Oliver, 1986).

Linear A is named as such due to the nature of its characters, which are linear in structure. This contrasts with the pictographic writings that were also prevalent during a similar period. Additionally, Linear A is believed to be a syllabic writing system, since majority of the Linear A characters are believed to be syllables (representing sounds only, and not concepts). This is contrasted with ideograms, which are symbols representing an idea or concept. However, it also seems that some characters within the Linear A writing system are logograms, in which logograms are written characters representing a word or a phrase.

The writing system in Crete that followed right after Linear A was called Linear B, a syllabic writing system (dating between 1450-1200 BCE) transcribing Archaic Mycenaean Greek, and was predominantly deciphered by Ventris with assistance from Chadwick (cf. Chadwick, 1967). Scholars (Chadwick 1967; Perono Cacciafoco 2017; Steele and Meißner 2017) have attempted using Linear B directly to decipher Linear A but to no avail. Yet, there may still be a possibility that Linear B is a reliable source, at the phonetic level, for the grammatology of Linear A. Due to the limited resources within the field of Linear A, the use of Linear B's syllabic values on Linear A characters is presently the only way to potentiall read the Linear A script due to the similarities in their signs. As such, the methodology of this paper attempts to use the established Linear B values as a starting point and at the same time, use a different approach of reconstructing Linear A clusters to tackle the decipherment
process of Linear A through another method. Traditional procedures in language deciphering, such as the comparison with other possible related languages, as well as reconstruction, may be useful for this study's attempt at the decipherment of Linear A. Voegelin and Voegelin (1963) states that procedures in language decipherment usually involve a historical, typological or even an experimental approach. To briefly elaborate, the historical approach in language deciphering involves the process of comparison of the target language with other languages to uncover possible similarities between the languages. On the other hand, the use of typology in language decipherment is done through the grouping of languages through factors like genealogy, language structure and geographic area. The experimental technique, as the name goes, is largely a speculation/trial-and-error method of the internal construction of the undeciphered language, conducted under the discretion of the individual researcher. As such, this paper aims to utilise the three approaches mentioned above, focusing largely on an experimental approach.

Trade was already considered to be prevalent and essential during the Bronze Age (e.g., Bass, 1991), not only for the procurement of raw materials for the creation of bronze, but also other items to support the livelihood and lifestyle of the population back then. If the Minoans were able to successfully partake in trade activities then, it is probable that the shared a common vocabulary, to some extent, with the languages of their trade partners. If the languages between the two parties were completely different, it might have been nearly impossible to conduct activities involving social interactions due to language barriers. Referencing the concept of the 'economics of language' (Marschak, 1965), the interchange between parties involved in trade necessitates an efficient form of correspondence. As such, some possible scenarios which could have supported Minoan trade could have been that the Minoans and their trading partners partook in the usage of a common language; one party is able to use the language used by the other party, to a large degree; the use of lingua franca within a topographic area; the use of an interpreter. It is undeniable that translators were engaged then, but prolonged exposure to a particular language may result in the manifestation of influences. Studies have stated that it seems implausible for the underlying language(s) of Linear A to have possessed strong relations with the common languages of the Bronze Age such as Semitic, Ancient Greek, Phoenician, Luwian, Akkadian and Egyptian (Nagy 1963; Owens 1997; Best 1982; Gordon 1982). However, studies have not exactly considered that Linear A could have derived influences from a variety of languages. This is a possible phenomenon since long-term exposure to the different languages during trade might have
influenced the grammatology and vocabulary of Linear A (Tan, forthcoming). Due to the elusive Minoan language, the methodology of this paper thus assumes that Linear A, more specifically its language, has been hypothetically influenced by recurrent foreign languages utilised during Cretan trade. On the other hand, it is also possible that the Minoan language could be a language isolate. Thus, what this paper also aims to do is to discover any potential connection with the other languages of the Minoan civilisation's likely trading partners. If the results highlight some form of similarities between the Minoan language and the targeted foreign languages, it can be taken as an indication of the relation between the languages. If the results do not showcase any potential relation, the target language can thus be possibly ruled out in future studies of the decipherment of Linear A.

This research will turn to three languages (Common Semitic, Hittite, and Middle Egyptian) as the possible influences with regards to the language(s) of Linear A. This study aims to contribute to the literature in terms of a potentially better understanding of the Linear A writing system and ultimately, leading to the discovery of the language behind it and the decipherment of this writing system. As a continuation of the author's Final Year Project at Nanyang Technological University, this study also aims to analyse the Linear A texts using an approach encompassing an original interpretation of possible clusters of symbols which have never been tried before (Tan, 2018). As an expansion and completion of the author's Final Year Project, the author covers almost the entirety of the Linear A data as obtained from the GORILA database in this paper, as compared to the selected few Linear A tablets in the 2018 paper. Aside from the involvement of comparative linguistics, this paper will apply a "brute-force attack" formula based on cryptanalysis, conventionally derived from the trial-and-error method in cryptography to exhaustively explore viable passwords in order to retrieve the accurate password. The decipherment of ancient languages occasionally had its roots in cryptanalysis. A notable instance is the decipherment of Linear B by Michael Ventris. The Linear B script along with its texts, were theoretically analysed as constituents, just like those within a cipher or encrypted messages, before phonetic values could be applied to the Linear B symbols and the interpretation of the texts afterwards (Palaima, 1993). It was through this method of cryptanalysis that Ventris deduced that (an archaic form of) Greek was the underlying language of Linear B. In this paper, a similar method is carried out in comparison with the three selected ancient languages listed earlier. Such a technique is employed here as there has yet to be a solid starting point to work on with regards to the decipherment of Linear A. Consequentially, this study has opted to turn to the use of
crytanalysis in language decipherment, in hopes of obtaining a clue to the language of Linear A. Should the methodology used in this paper show potential results, future studies can subsequently refer to the foundation established in this paper. This will help to branch out into a methodological analysis of comparative approach, in order to look into the various ways to decipher the Minoan language. This paper will contribute to the decipherment process/attempt of Linear A through the methodology of reconstruction and recombination of the Linear A clusters. Although no concrete statement can be made about the extent of decipherment of Linear A, some points have been noted with this methodology, which will be discussed later into this paper.

### 1.1 Minoan Crete and Trade During the Bronze Age

In the time of the Bronze Age (around 3200-1180 BCE), an advancement in international maritime exchanges was detected in the eastern Mediterranean, accelerating during the Late Bronze Age (around 1550-1180 BCE). This was broadly chronicled as an international period. The international hobnob involving the alliance between the Aegean, Egypt and Levant, have been recorded starting from at least the Middle Bronze Age, as seen from an Aegean-variety of paintings in the Levant (particularly in Alalakh, Qatna and Tell Kabri) and in Egypt (specifically in Tell el Daba), which will be mentioned further down this section. In addition, a passage from Mari documented that in the Levant's coastal region, the nation-state Ugarit, had long since been a bustling trading hub, where tin trade was conducted with the Minoans, via the help of a translator (Knapp, 1992). There are several factors that proved trade was prevalent during the Bronze Age. First, the presence of sailing ships, such as those illustrated on the "Miniature Frescos" from Thera (Warren, 1979), aided in the promotion of trade within the Aegean. Second is the presence of systematic procedures to obtain measurements, as well as the common findings of "stirrup" jars and storage jars. All these were necessary especially in long-distance trading.

The beginning of trade in metal at the Early Bronze Age, showed Lavrion mines in Attica and the Cycladic Islands as being popular sources. Scientific provenance studies had shown that Lavrion in Attica and the Cycladic island of Siphnos used to be sources of lead ore (Gale et al., 1992; 2007). However, we should remember to not make the mistake of hypothesising the culture of ancient societies simply based on scientific evidence. No matter how precise the results of provenance and analytical work seem, it is difficult to understand the societal/humanitarian aspect involved during a particular timeframe based on provenance
data alone (Knapp, 2000, pp. 5). Instead, scientific evidence can be utilised to contribute to the analytical data, possibly allowing for its application to various social interpretations. In such an event, the realm of social theory can then be applied by archaeologists in better understanding the ancient societies and their process of change (by connecting the societies, people, and data involved).

The so-called oxhide copper ingots, belonging mainly to the second part of 2000 BCE, may possibly postulate a better perception of the trading of metals in the Mediterranean zone during the (Late) Bronze Age. These copper ingots represented a key method in the transmission of pure copper during the (Late) Bronze Age (Gale and Stos-Gale, 1986). As it is known, trade, especially in the area of the eastern Mediterranean, developed further during the Late Bronze Age, and became more complex and widespread. During the Minoan palatial period, it was seen that Crete depended on international sources, particularly for copper and tin (Niemeier 1986 as cited in Niemeier 2004; Wiener 1987, 1991). Lavrion and especially Cyprus, seemed to be significant copper suppliers to Crete, particularly in the second millennium BCE (Muhly and Kassianidou, 2012). Lead isotope analysis conducted on prototypes obtained from Thera and Kea, indicated Cyprus as a source for a portion of the copper utilised in the Mediterranean during Late Minoan IA. Contrarily, there was a sudden decrease in the utilisation of copper from the Cyclades during the Neo-palatial stage, maybe because sources had been used up, resulting in the Minoans having to depend on copper sources from much further away (Gale and Stos-Gale, 2009). Due to the fact that Crete lack any source of tin and had an extremely minute amount of copper, it had to depend on foreign sources as bronze was essential in the Middle and Late Bronze Age societies (Wiener, 2013). Watrous (1984) mentioned that evidence of metalwork activity in Crete may be found in Hagia Triada, based on the copper ingots found, as well as two Linear A tablets (HT 97 and HT 119) possibly containing records of coppersmiths and/or allotments of copper. Largescale metalworking was also pervasive during the period of Middle Minoan IB to Late Minoan IB due to the establishment of a group of specialised metalsmiths. An initial large proportion of copper ingots was brought into Crete during this time, in support of this situation (Hemingway and Harrison, 1996).

Based on lead isotope analyses, the copper ingots discovered in the Mediterranean, including Gournia (Crete), were proposed to have been derived from Cyprus, while those detected at Tylissos and Hagia Triada (Crete) were presupposed to have been obtained from
central Asia. However, there is a lack of agreement regarding the location where Late Bronze Age (1500-1050 BCE) copper oxhide ingots had been produced, although the numerous oxhide ingots found in two Late Bronze Age shipwrecks at Cape Gelidonya and Uluburun, off the southern coast of Asia Minor, indicated that they were transported by sea for their transaction, suggesting an accessible location within reach, as a potential area of production (Mangou and Ioannou, 2000).

Shipwreck studies dating to the Bronze Age can also provide further insight into trades being conducted in the eastern Mediterranean. For instance, the earliest Bronze Age shipwreck was discovered off the shore of the Pseira island in Crete, dating to the Middle Minoan IIB (1800 - 1675 BCE), and possibly transported a cargo of oil and wine (Sauvage, 2017). After which, the later findings of a Dokos shipwreck during the Early Bronze Age (Papathanassopoulos, 1990) and an Irian shipwreck, carrying pottery from Cyprus, during the Late Bronze Age (Tartaron, 2013), both off the shores of Greece, at Southern Argolid, have brought up the prospect of understanding trade with the Aegean trade beginning from a much earlier phase, as well as a more in-depth analysis of interconnectivity during the Late Bronze Age, particularly between Greece, Cyprus, the Levant and Egypt (Pratt 2014).

Moreover, the numerous slabs of glass found in the Uluburun shipwreck were indicative of the movements of the raw material in the Eastern Mediterranean (Eder, 2015). Bachhuber's (2006) paper analysed the likelihood of a consular expedition proceeding to the Aegean based on the Uluburun shipwreck. Shipwreck objects also included wooden writing boards, in which both Egyptians and Hittites made use of in their everyday lives. As Egyptian objects had been ascertained to be part of the shipwreck finds, one of the theories of Bachhuber's paper is that a diplomatic voyage was being carried out by an Egyptian delegation to the Aegean (Bachhuber, 2006). An alternative theory by him is that the Uluburun ship was equipped at minimally one Near Eastern port. This was based on evidence of the anchors having close parallels to the anchors recovered from present-day Cyprus, Syria, Lebanon and Israel. On the other hand, according to Muhly et al. (1977), a greater understanding of trade during the Late Bronze Age could be obtained if the port of origin of the Gelidonya ship as well as the nationality of the crew members could be recognised. Based on the ship's cargo, one view indicated that trade has occurred between the Aegean and the greater Levant. Yet, it is undeniable that the presence of varied shipwreck items are indications of not just trade, but may simply have been foreign items obtained when the ship
stopped at the various harbours. Trade has been variously argued as a factor for the Minoan presence in the Cyclades, but there seemed to be minimal visible resources aside from adequate harbours. Intangible exports, such as textiles, hides or craft techniques, were considered to be doubtful since neither the Cycladic capacity nor the Minoan need has been demonstrated. Phythyon (1980) then suggested that those Cycladic sites could be considered as transit points for merchants while they engaged in trade with Crete and other places. Given the nature of seafaring during the Bronze Age and in the later Classical period, stopovers were required along any trading route.

There were a few instances of Late Bronze Age copper use within the Mediterranean, originating from Anatolia (Muhly and Kassianidou, 2012), Sardinia and Israel, which was a further indication of trade. Sardinia was a possible port of call for Minoans, based on archaeological evidence of pottery from Antigori and Orosei (Hallager, 1985). Trace elemental analyses of tin have also shown that the tin had been derived from multiple sources, such as Anatolian obsidian found at Levant, Cyprus, and Crete (Knossos and Malia) (Carter and Kilikoglou, 2007) and obsidian deriving from the Carpathian mountains being in use in Macedonia (Kilikoglou et al., 1996). That being said, it is important to emphasise the predominant copper supply for a large number of the prime Aegean and eastern Mediterranean strongholds of the Late Bronze Age, meaning there would no doubt have been intensive trade between Cyprus and Crete as well (Cline, 2014). There is also a speculation that one of the tin supplies to the Mediterranean region during the Bronze Age, was from the Taurus mountains in Anatolia (Bennet and Galaty, 1997). Early studies also found that majority of the obsidian utilised by the Mediterranean were obtained from Melos, hinting at the possibility of an "Aegean interaction zone" (Renfrew et al., 1965). Another study by Runnels and van Andel (1988) linked the proliferation of agricultural activities across the Aegean to factors like the creation and commerce of goods with prestige.

It can be said that there were five main ore sources potentially available to the Aegean people during the Late Bronze Age, especially for copper production. They included Cyprus, Lavrion in south Attica, Araba valley copper mines between Israel and Jordan (Hauptmann et al., 1992), some mines in the Taurus mountains, the Bolgardag valley north of Mersin (Yener et al., 1989), as well as Sardinia (Evely and Stos, 2004). Through the use of metallurgical analysis, when summarised with indications that some items of the Late Minoan were produced using copper that seemed highly likely to have been derived from Cyprus or

Lavrion, the contradictory data (in which the Hagia Triada ingots were congruous with the elemental configuration of items from west Anatolia, the Cyclades, or Sardinia) indicated that copper obtained across minimally four varied sources was being utilised in Crete during Late Minoan (Knapp, 1990). As can be seen, contacts were sustained during the Bronze Age between Crete and its bordering regions of the Aegean, and areas of Mesopotamia and the West, with the Ionian islands playing a crucial role linking Crete with the West as well, especially Italy (Kontorli-Papadopoulou, 2016). This can imply the impact of copper procurement on Linear A. Obtaining regular supplies of copper from specific sources, such as those mentioned above, could have led to an indirect impact on the language of the Minoan civilisation due to the need for communication. Once again, the possibility of the Minoan language having had an impact on the language of the copper suppliers instead, or the use of translators to aid the transactions cannot be ruled out as well.

Touching on the issue of a Minoan thalassocracy, Niemeier (2004) mentioned that there are two schools of thoughts regarding the association between Crete and other parts of the Aegean during the period of the Cretan palaces. There is a school of thought which believes in the Minoan thalassocracy based on historical facts, and that Knossos ruled over an Aegean empire (Dow 1967; Cadogan 1984; Hood 1984; Niemeier 1984). Contrarily, another school of thought has a differing opinion, wherein it is believed that Crete did not have control over the other Aegean islands, only providing an economic and cultural influence on them (Starr 1955; Branigan 1984; Doumas 1982). According to Starr (1955), the Minoan Thalassocracy is believed to be a myth because a Cretan control of the seas can neither logically, archeologically, nor historically be proved. Regardless, it showed that Crete was heavily involved in trade then.

Moving forward, evidence from clay sealings which were impressed by signet rings with bull motifs, indicated a political structure in Crete wherein the economic activities of the island was managed by Knossos (Betts 1967), since the bull was the symbol of power of Knossos (Hallager and Hallager, 1995). This corresponded to an Egyptian inscription of the time of Thutmoses III mentioning the king of Keftiu (Crete), together with the kings of other countries (Vercoutter, 1956) and forming evidence for central rule in Bronze Age Crete as well as to the legendary heritage of an overlordship by the rulers of Knossos with dynasties in other parts of the island owning allegiance to them (Huxley, 1968). Many complex developments took place in Crete from as early as Early Minoan I-II, with present evidence
indicating that sealings occurred more widely during the Early Minoan IIB setting (Schoep, 2004). The clay of the West Court House sealings appeared to be foreign to Knossos (Weingarten 1994; Wilson 1994) and as a result, those sealings were probably sealing objects that had been brought over from elsewhere. The use of sealings could then be treated as being part of a wider network of exchange, such as a situation of gift exchange.

Court visits conducted by foreign emissaries prior to the Amarna period were illustrated in some of the tomb scenes of New Kingdom Theban. In the course of the span of the 18th Dynasty, the depiction of diplomatic consulates extending priceless articles to the Egyptian king was a common trope in the Theban private tombs paintings, particularly during c. 1480 BCE to 1380 BCE. The linkage amidst Egypt and the Aegean, as well as the presence of gift-exchange, particularly in the Late Bronze Age, could have caused the hybrid nature of the paintings (Panagiotopoulos, 2001). However, according to him, the representation of Aegeans during gift exchange scenes depicted in Theban tombs might not be accurate since it was viewed through the lens of an Egyptian. Based on pictographic and written evidence, the New Kingdom Egyptians apparently identified Keftiu (referring to Crete) and its populace as being relatively similar to their societal view of 'North' and 'Asia' (Matić, 2012). Evans also recognised the depiction of 'Minoans' based on the Aegean silhouettes in the "Theban Eighteenth Dynasty tombs of Senenmut, Useramun, Menkheperreseneb and Rekhmire". With respect to the Egyptian's view and concept of the world, 'The London Medical Papyrus' mentioned two spells recorded in Keftian, wherein one of the spells was to supposedly cure an 'Asiatic' disease (Strange 1980; Kyriakidis 2002). As such, it was possible to link the Aegean and Keftian representations with the Egyptian's theory of 'Asia'. Thus, ethnical 'topography' is the sole factor which can prove that Minoan Crete was the nation of the Aegeans in the paintings since Keftiu, according to the Egyptians, was located in 'Asia' (Matić, 2012).

Gift exchange was the course of action when it came to diplomatic relations; those with similar political status provided gifts to each other in order to advance the nature of mutuality, cooperation and further gift giving. Such an exchange was practiced at the apex of political and societal echelons across the Late Bronze Age period. A large quantity of the gifts were of prestige or items and commodities of extraordinary traditional and genuine worth. Essentially, the idea of gift-giving could be treated as a "complex gesture involving politically and economically motivated behaviour" (Bachhuber, 2006, pp. 351). With the
remaining five centuries of the Bronze Age overseeing a rise in production levels and the resulting increase in maritime traffic, especially in the Eastern Mediterranean, it was no doubt an indicator that the Minoan civilisation had dabbled in trade as well. During the Late Bronze Age, palatial gift exchange between the various 'powerhouses' of the time was a common occurrence. Gift exchanges during the Late Bronze Age (but again, it might have happened possibly earlier) included skilled workers such as artists, wherein Aegean artists could have been located in Egypt and the Near East from as early as the 1700 BCE, accounting for the various Aegean-style works found in those locations (Cline, 2014). Although we do not have any understanding whether these Aegean artists returned to Greece after the completion of their work of, if they did return to their hometown, it is possible that they could have picked up the language while they were in Egypt or the Near East and brought it back to the Aegean with them.

Archaeological and documentary records may show political, economic and ethnic bonds between the Near East and the Mediterranean during the Bronze Age (Knapp, 1992). Evidence indicating significant contact, during the Protopalatial period, between Minoan Crete and the Levant can also be seen (Cherry, 1986). There is the possibility of trade which could have been conducted with Egypt and the Levant, wherein the possession of Egyptian objects were presumed to showcase some form of prestige (Tartaron, 2008). The presence of the "Aegean List" recorded on the fifth statue base within Amenhotep III's funerary temple seems to be a logbook of a full circle expedition between Egypt and the Aegean. This added on to the possible trade relation between Egypt and the Aegean. Minoan Crete seemed like the main target port of call in the Aegean, for Egypt and Near East trade routes, at the minimum during the earlier part of 1400 BCE. Further evidence can be seen from relatively similar number of items of Egypt, Cyprus and Canaan origins found in Crete (Cline, 2014). There has also been more attestation of the relationship between Minoan Crete and Egypt through Minoan-type frescoes detected at ancient Avaris (Tell el Dab’a) (Knapp 1992; Morgan 1995) and an Egyptian parchment allegedly portraying Mycenaean warriors (Schofield and Parkinson, 1994). Minoan-style painted-plaster floors have also been found at Tel Kabri in Israel (Niemeyer, 1991), with murals influenced by the Aegean also found at the same site (Niemeier, 1995) giving us more evidence of possible trading activities between the Aegean and Egypt, as well as the Levant. This points to a possibility of various diplomatic or friendly correspondences between Crete and Egypt (Knapp, 1993), raising the likelihood of Minoan vocabulary being possibly influenced by Ancient Egyptian or Near Eastern
languages, especially when there was prolonged contact between the ancient civilisations due to trade. In addition, both the Chieftain Vase and Harvester Vase seemed to provide clues as to possible trading relations between Egypt and most likely, Minoan Crete (Watrous, 1984).

It has also been suggested that Crete participated in commercial activities with the ancient Near East, exporting pharmaceutical items, wood, ceramics, oil, alcohol, grains, minerals and ores. In addition, a text from Ugarit, written in Akkadian and dating back to 1300 BCE , recorded that a renowned entrepreneur dispatched "some grain, a fermented beverage, and oil" from Kabduri (Crete) into Ugarit, (Knapp, 1991, pp. 37-38). Another instance of the ties between Crete and Egypt is the fact that ships from Crete transferred timber, ivory and precious or semi-precious stones available in the Levant into Egypt. Additionally, some Cretan ships were either constructed or mended in Egypt (Strange, 1980). A further example is the suggestion that in the early 2000 BCE, the Aegean world, and particularly Crete, were highly involved in the ease of trade provided by the location of the eastern Mediterranean and as such, obtained a passage to both goods and culture from ancient western Asia and Egypt. All these documentary evidence showed that Crete indeed took part in a multitude of trades, especially with western Asia and Egypt (Knapp, 1992). Furthermore, Aegean jewellery motifs, through their use of specific materials, carried emblematic significance, just like those from Egypt and Near East (Eder, 2015). Such a phenomenon could have risen due to contact between these areas. Exotic materials in the Bronze Age Aegean comprised lapis lazuli and amber. Lapis lazuli came from Afghanistan, Iran and Pakistan. On the other hand, Amber came from the Baltic in northern Europe, and from there it was routed across central Europe and the central Mediterranean to the Greek mainland, where it was most likely distributed to the Eastern Mediterranean (Eder, 2015).

Although not much have been studied about it, archaeobotany, particularly that of wheat or cereal, could be used as a clue to study early interrelations within the Mediterranean and with the East beginning from the Neo-palatial period (Livarda and Kotzamani, 2013). Although lacking in empirical evidence, the presence of archaebotany can possibly be used to support the theory of linguistic influence on Linear A due to the possibly prevalent foreign trade. All ancient economies relied mainly on agriculture, with trade and industry in Crete likely only picking up after the Neolithic period (Starr, 1955). As such, self-sustenance still seemed to be the main driving force of the societies of the Bronze Ages (Starr, 1955; Phythyon, 1980). Minoan Crete was considered to be self-sufficient in produce and other
basic resources. As a result of intensified agricultural (olive and wine) and fabric manufacturing, intended for both internal consumption and export, it reached the apex of prosperity by about 1600 BCE (Knapp, 1992). This then provides another supporting evidence of possible trade the Minoan civilisation may have conducted with other civilisations, providing them with supplies of olive, wine, and fabric. Through the viewpoint of this paper, the trade may have been a factor in the influence of foreign languages on Linear A, or maybe vice versa. The production of Cretan olives and vines are also well attested through material attestations of the Early Bronze Age (the latest being Early Minoan II) onwards; wine and oil were attested in the Linear A texts, with Linear B texts providing information as well. It seemed that olive and wine were essential in Bronze Age Crete, being used in everyday lives as well as for religious or funerary practices (Hadjisavvas and Chaniotis, 2012).

In terms of Minoan religion, studies conducted on such aspects depended mainly on iconographical evidence (Gulizio and Nakassis, 2014). Wall paintings images, pottery, sarcophagi, and signet usually indicate possible rituals and divinities, but there is no way to differentiate the individual gods (Marinatos 1993). In-demand rituals significantly involved the presence and usage of peak sanctuaries during the early 2000 BCE, Middle Minoan Crete. Majority of peak sanctuaries were innately marked out loci, wherein people placed figurines and other votive items, and engaged in cultic acts. Most sites granted "visual contact" with various comparable religious spots, allowing the "participants of ritual acts to feel connected to other groups of people in the wider region" (Vavouranakis, 2019, pp. 1). Haysom's (2018) premise regarding the value of male symbolism in peak sanctuary votives, elaborated below, can be coincided with the deposition of weapons, providing for an understanding of elite interest in sacred caves in the earlier times as well. This suggested that peak sanctuaries also allowed interaction between elite and non-elite throughout the Protopalatial period. In addition, the quality and quantity of drinking and eating vessels discovered, have been interpreted as evidence for large-scale ritualised drinking and feasting practices taking place from Early Minoan I all the way to Early Minoan IIB (Day and Wilson 1998). An in-depth understanding of Minoan religion can also play an important role in better understanding the Minoan language, particularly that of spiritual-related terminology. Faith was no doubt a significant aspect of the Minoan civilisation and consequently, it cannot be refuted that the language of the Minoan civilisation would not encompass vocabulary pertaining to their sacred beliefs.

More recent excavated peak sanctuaries and restudies of long-known examples seem to portray the significance of the early Neopalatial period on peak sanctuaries (Haysom, 2018). A significant quantity of terracotta animal figurines, mainly bovine figurines, have been found. This sort of symbolism seemed to showcase a predominantly competitive or violent culture, with the greatest interactants involving men. Bull images on relief-decorated stone-vases also emphasised a possibly male-dominated culture. Yet, the relation between women and children was characterised distinctly in the Mycenaean and Minoan societies of the Greek mainland and Crete respectively. Proof of Minoan and Mycenaean childcare traditions derived from two sources: the administration documentations recorded in Linear B, and imaginative portrayal of women and children. While the documented data of both Minoan and Mycenaean societies placed women as daily childcare givers, their iconography suggested that these two cultures assigned different merits to this role and did not have similar views when it came to entrusting women as being solely devoted to the family. The artwork belonging to Late Minoan Crete showed that child rearing was not the fundamental role of the women there (Olsen, 1998). There was no proof that the Minoans revered motherhood, be it spiritual or mortal. It was then inferred that the Minoan society did not fixate on idealising women as mothers, placing them in other capacities as well, which can be seen from Minoan art placing women in social positions rather than the biological, and in public rather than domestic. The presence of Goddesses and priestesses in Minoan religion, sacred dancers, as well as the depiction of elite women donning elaborate costumes, also seemed to indicate the importance of women in Cretan society (Graham, 1962).

There was optimal contact between Crete, Cyprus and the Near East, during the Late Bronze Age, but contacts have already been established even prior to that. Although archaeological evidence of Minoan goods was relatively scarce in Cyprus, Egypt and the Levant, Cretan archival and visual evidence suggested an intensive trade (Knapp, 1992). The Amarna Letters, which were clay tablet inscriptions, was one of the first documentations of Bronze Age international relations in the eastern Mediterranean and Egypt, during the mid1400 BCE, reflecting strong political relations between the powerhouses involved. They narrated important recounts of major social and political events, including court visits by foreign emissaries carried out for the purpose of gift exchanges, diplomatic and military treaty or mergers (Liverani 2001; Bryce 2003). It seemed like there was significant contact, derived from the action of gift exchanges, on an international level between the different
powers of the Aegean, Egypt and the Near East during the Late Bronze Age (Knapp, 1993; Cline, 2014). However, it is possible that such contact have been occurring since much earlier. Also as seen from archaeological evidence, Late Bronze Age Aegean had contacts with the Near East, in particular, the Aegean had possible connections with Amenhotep III (Egypt) during the first half of Late Minoan IIIA (Bunimovitz et al., 2013).

Pottery also plays a role in providing evidence of potential trade relations between Minoan Crete and various states. The languages spoken by the foreign towns wherein Cretan pottery had been discovered can thus be considered to have influenced the Minoan language, or possibly vice versa. Moreover, pottery usually bear a specific impression (or potters' mark), enabling the tracing back of the ceramic to the general region of origin. For instance, the handles of storage jars found in Ashkelon bore Cypro-Minoan signs (Cross and Stager, 2006), which meant that those jars were most likely produced in Cyprus. Cretan pottery, from Middle Minoan II and III, had been found in Egypt and along the Syrian coast. This indicated that the trade was in both directions; Egyptian products were found in Crete, while Syrian influence on Middle Minoan culture had been noted. Trade with the Aegean islands also flourished. This was another indication that Crete had contact with the Cyclades and with Egypt, as well as Syria. The type of trade Minoans conducted with the Cyclades and the Near East during Middle Minoan II and part of Middle Minoan III seemed to be executed by means of governmental control. The Cretan palaces themselves, and the keeping of fairly complicated accounts, spoke of a high degree of governmental organisation (Buck, 1962). The involvement of the Minoans with trade may be showcased by the emergence of Minoan pottery in the bay of Morphou at Hagia Eirene and Toumba tou Skourou, a Bronze Age mound in northwest Cyprus, near the Troodos mining region, during Late Minoan IA (Vermeule and Wolsky 1978). Concurrently, significant quantity of Late Helladic IIIA-B pottery had also been found in places in the Levant, like Ugarit (present-day Syria) and Byblos (present-day Lebanon), indicating a possible strong trade relation with the Aegean (Bachhuber, 2006). Furthermore, through the use of petrography, it can be seen that pottery had already been widely distributed in Crete during the Prepalatial period, both on a local scale and inter-regional level. This may be because specialised pottery seemed to be a prestige item, used both as a status marker and for funerary processes (Betancourt, 2003). Petrography allows one to trace the origins of the raw materials used in the production of ceramicwares. With the prevalence of trade during the Bronze Age, the identification of a potter's mark or petrographic analysis can help pinpoint the origin of the ceramic, allowing a
better understanding of the trade situation. In turn, a better understanding of the possible linguistic influence of trade on Linear A can also be obtained.

Possible relations between Crete and Cyprus during the Bronze Age have also been studied, especially because of the affinity between the ancient Cretan and Cypriote scripts with the latter called 'Cypro-Minoan', questions have then arisen on how the script may have reached Cyprus (Karageorghis, 2012). The Cypro-Minoan script is also another writing system of the Aegean world yet to be deciphered, with discovered texts seeming to represent literary or epistolary texts (Billigmeier, 1976). The relationship between Crete and Cyprus can be especially seen from evidence of Aegean objects imported to Cyprus, such as works of art including pottery. This indicated a possibility of contact beyond trade, namely reciprocal artistic and other influences. From the beginning of Karageorghis's (2012) research, he considered it quite natural that Cyprus and Crete should have started their connections so early, and that these connections should have continued over a long duration. This is due to the fact that both islands were situated near continents where they had early and direct contacts with. Davies and Olivier (2012) then suggested looking into both Cyprus and Crete from 2000 to 1000 BCE , in terms of both language and writing, language and dialect variation in space and time, the presence or otherwise lack of multilingualism, and the possible existence of lingua franca. In addition, personal names and place names should be studied to compare and contrast both lexical and onomastic development.

The main ancient towns of Cyprus were located in areas that were close to raw materials and conducive for trade; they were situated at the edges of plains which had easy access to coastal harbours and river estuaries, or in inland valleys with good communications both to the coast and to the forested mountains of the copper zones in the southwest center of the island. In the bronze age, especially after 1600 BCE , the arts and the ideas of the Levantine and the Aegean worlds met there and made creative exchanges (Vermule and Wolsky, 1978). During the Bronze Age, crucial locations on the southern and eastern shores of Cyprus, for instance Enkomi, Hala Sultan Tekke and Kition, had profitable business correspondence with business hubs of the ancient Near East. The writing style emerging from Cyprus was surprisingly affiliated with the linear-style Aegean scripts, especially Linear A from Crete (Vermeule, 2015). In the earliest text, a three-liner tablet from Enkomi was found in a context close to 1500 BCE , with the form of the script being closest to that of the Cretan script. However, the time period was too early for the script to have been affected by

Mycenaean contacts between 1400 BCE to 1300 BCE, but there is no doubt the form of the writing was very close to Linear A. At some point before 1500 BCE, Minoans must have been in Cyprus, or vice versa. Yet, aside from two Middle Minoan vases indicating a contact too early to have affected the script as we know it, and Late Minoan IIIA material of just after 1400 BCE when the palace system collapsed in Crete, there was no evidence of a relationship with the Minoans (Vermeule, 2015). Consequently, material evidence showcasing a relationship between the Minoans and Cypriotes had been found at Toumba tou Skourou in the early 1600 BCE. Toumba tou Skourou seemed to have been one of the great Cypriote pottery centers, and its location on an estuary of the Ovghos river was favourable for maritime trade. At both Toumba tou Skourou and Ayia Irini, its neighbor eight miles to the north, archaeological discoveries indicated that trade with the Aegean began to develop early, during 1600 BCE and early 1500 BCE .

As mentioned by Livarda and Kotzamani (2013), Crete had a crucial location when it came to the expansion of farming, which could be traced back to western Asia. The preliminary exposure to people and ideas may be trailed back to the advent of agriculture and farming techniques on the island. Knapp (1992) also talked about the ideal geography of Crete as a convenient 'rest-stop' for merchants engaging in long-distance trade, in particular between the eastern and central part of the Aegean, as well as between Europe and western Asia (inclusive of Egypt). This enabled Crete to function as a connecting point in terms of obtaining and disseminating various influences from both sides (Chadwick, 1975). The western end of Crete was around 100 km away from mainland Greece; Anatolia was about 200km away from both Crete and Thera; Rhodes was based about 150 km northeast of Crete. This also indicated that influences from other areas could have reached Create without too much of a difficulty.

All these points highlight the important role of trade that could possibly have influenced the Minoan language. Kommos in Crete boasted the biggest assembly of foreign items in the Bronze Age Aegean, which indicated a strong presence of trade. Furthermore, Knossos was a key site in the Minoan era, as an supreme polity in the Aegean. It also emjoyed the geographic advantage of being located on the periphery of the Aegean and in line with the Eastern Mediterranean circuit, making it easier to establish trade relations with other countries (Bachhuber, 2006). The eastern Mediterranean hubs of the Late Bronze Age then served not only as nodes for the redistribution of goods, but also as centres for the
transference of ideas and knowledge of distant cultures. This depended though on the receptiveness of people towards foreign objects and ideas (Maran, 2004). Although an arguable and uncertain presumption, it is hypothetically possible that this situation can be traced back to the earlier centuries based on the idea of presupposition and trend.

On the other hand, most genetic studies only talk about population movements; how a certain population migrates from one area to another, affecting the genetic lineage in a particular region. Anthropological studies such as Lazaridis et al., 2017, have designated a Neolithic origin to the first Minoan settlers, while cultural studies such as Douvitsas, 2005, believed that the Minoan civilisation could have originated from the East. More recently, Papakitsos (2019) explored the ancestry of the Minoan civilisation through linguistic evidence, using the rebus principle, which compares the signs of Aegean scripts to the Sumerian writing system. In addition to other indirect evidence, it shows that the idea of Sumerians having been a possible ancestor of the Minoans should not be ruled out. However, as majority of the genetic studies focused more on the shift in population rather than language influences, the literature will not be taken into account in this study as they are not decisive for the linguistic influences on the Minoan language.

### 1.2 The Linear A Writing System

A writing system encompasses a script, a group of symbols, and in conjunction with a spoken language, warrants the characterisation of linguistic acoustics (Knight and Sproat, 2009). Majority of the ancient writing systems were logographic-syllabic, consisting of a combination of logograms and syllables. The same goes for Linear A (Davis, 2014; Decorte, 2018; Salgarella, 2020). Each writing system has its own spelling rules in terms of combining logograms and syllables so that the relevant language can be represented phonetically (Fuls, 2015). The Linear A writing system is assumed to be an open syllabary, wherein each sign represents either a consonant paired with a vowel, or a pure vowel. A syllabic writing system can then be construed as syllables embodying the respective signs. Objects are sometimes depicted through plain sketches (logograms), which exemplify words (Olivier, 1986). To date, the most notable decipherment progress on Linear A is the identification of the Minoan term ku-ro, expected to be of Semitic origin (Pope, 1958), while Kvashilava (2018) refers to a Kartvelian origin. This term is unanimously established to mean "total" or "sum of". This specific cluster group can be found in a significant number of Linear A tablets mainly from Hagia Triada, indicating a likely administrative content within those tablets. No other Minoan
terms and their established meanings have been declared with certainty aside from $k u$-ro, highlighting the difficulty in deciphering this extremely elusive Minoan language.

Before Linear A came into existence, the Minoans used Cretan Hieroglyphs as their initial form of writing during the Protopalatial period. Linear A may have been present then, but it seemed like its use was much sparser. As authenticated by the single sealing originating from Myrtos (Warren, 1973), the cretulae system, which involved clay nodules being imprinted with at least one seal impression (Pope, 1960), was being utilised since tentatively 2500 BCE. This system was similar to that used in the Near East, and it may be acceptable if the cretulae system used in Crete was brought over from the Near East. Afterwards, the Cretan hieroglyphic system coexisted alongside the Linear A writing system. However, the notable features of both systems were maintained, showcasing the fact that they were two independent systems. Perna et al. (2014) then speculates that the two different scripts were jointly used in Minoan Crete, as it was possible that two distinct communities or ethnic groups co-existed together. However, Cretan Hieroglyphic seemed to cease existence nearing the end of 1600 BCE , after which, Linear A became the core writing system used by the Minoans.

Since Early Minoan period, it seemed as if the Minoans already developed commercial contacts with both the Near East and Egypt. We can then deduce that Linear A is an original Cretan script, and probably had linguistic influences from both the Near Eastern and/or Egyptian cultures (Watrous 1987; Perna et al. 2014). However, far too few evidence and materials are available, making it still impossible to trace the history of the development of the Minoan script (Chadwick, 1975).

The Linear A corpus consists of a total of minimally 7000 characters on roughly 1427 objects, and encompasses tablets relating to administration, sealings and roundels, which involves almost $90 \%$ of the corpus, and the remaining corpus possibly being religious in nature, since a majority of them were inscribed on stone and pottery vessels (Davis, 2010). The Linear A syllabary consists of 97 characters, whereupon 64 of them were implemented in Linear B with only very subtle distinctions. Moreover, multiple Linear A signs were also noted in the Cypriot scripts, sharing similar phonetic values with Linear B and the Cypriot syllabary (Perna et al., 2014). The available Linear A corpus showed clay tablets as the main form of writing medium, and there were 1745 signs in the corpus. Linear A texts are taken to
be written from left to right, with words being separated by either numerical signs or a dot. As in the case with Linear A, if the undeciphered script uses a word divider, it is easy to determine word lengths. The calculation of the mean word length is based on a word list of 554 complete sign sequences, without any replicas (Godart and Oliver, 1985). According to Fuls (2015), the mean word length of Linear A is then about 3.3 signs.

It is possible that the presence of a basic decimal system together with the Minoan writing system, dealt mainly with economic purposes. This can be said so as this system was established and then coexisted with the advent of Cretan palaces from 1900 to 1625 BCE (Olivier, 1986). There may even be the likelihood of Linear A tablets reflecting a record of accounts (Anderson, 1958). Referencing the Linear B and Mesopotamian tablets, the Linear A tablets at Hagia Triada could possibly be recording similar contents, for example, the collection and redistribution of commodities, such as agricultural products (Watrous, 1984). Bennet and Galaty (1997) then proposed that due to the close nature of Linear A with Linear $B$, findings from Linear A can be consequentially utilised to a certain degree to identify the management of Minoan economy (Palmer, 1995) as well as analyse the sequence of recurrence in the script to understand if ritual activities and politics were interlinked (Schoep, 1994). Economic and social information (e.g., animal rearing, textile production, bronze distribution, records of taxes and of religious offerings etc.) in the Linear B tablets showed a more detailed form of administrative record keeping, as compared to what was represented on the Linear A tablets. On the contrary, the lack of standardisation in the Linear A writing system seemed to imply that Linear A tablets were written only when necessitated and were not intended to be circulated among the general public, whereas Linear B tablets were meant for proper archival processing by third parties. For instance, identical terms were never used for complementary commodities at Khania and Zakro, indicating distinct ways of handling administration at varied Cretan sites (Schoep, 1999). Yet, there is a possibility that such similar economic system must have been at least partially recorded in Linear A, probably on some form of perishable material (Perna et al., 2014). This makes it unfortunate that only the clay tablets used for accounts in Linear A were the only records durable enough to survive long burial in the Cretan climate (Ventris, 1940).

The study of the finds from Zakros, Hagia Triada, Knossos, Arkhanes and Khania, indicated an elaborate bureaucratic use of the Minoan script. Although the hypothetical Linear A lexicon, of over 900 established words, is presumed to be made up of basic
everyday terms, the greatest percentage of its glossary is considered to be encompass administrative terms, with vocabulary related to rituals being the second most. Linear A is now seen to have broader applications than Linear B, not only in terms of religious (e.g., the inscribed votive tables, ladles, miniature double axes etc.) and secular inscriptions, but also in administrative uses, as seen from workroom records at smaller sites (e.g., TYlissos house A; ARKH), and records on short-lived materials, such as those belonging to the Hagia Triada nodules (from GORILA vol.2). As with the other Linear A and Linear B records, none of the tablets from Cycladic sites, such as Kenos (MM III) and Phylakopi (LB I), gave the impression of intentional firing, which was then evidence for the local use of Linear A for constitutional purposes. Overall, the Cycladic finds of Linear A pointed to a consistent use of the script, particularly for economic and even administrative purposes. This use of writing came at a time when Melos, Thera, and Keos were not only actively trading with Cretan centres and each other, but when Cretan pottery was reaching the mainland (Palaima, 2015). The available evidence indicated that language of Linear A could probably be regarded as an administrative one, with trade likely having been a significant activity for the Minoans. The presence of trade could also have affected the vocabulary of the Linear A, which is something this study wishes to consider. However, there is uncertainty that the Linear A inscriptions found in archival documents and the ones recording votive inscriptions, encoded an identical language (Olivier, 1986). This is due to the fact that the orthography can be similar in various languages with the same writing system. Yet, there is also no proof for the contrary (Pope and Raison, 1978). A striking comment made by Warren (1973) was the necessity of texts that are definitely non-economic in nature and texts long enough, which would supply scholars with more elaborate information and characteristics regarding the language structure, for the ultimate decipherment of Linear A.

Similar to other researches, all assumptions made about Linear A in this study were largely derived through comparison with Linear B (Petrolito et al., 2015). Although Myres (1948) necessitated an observation that it may be unwise to equate any similarly-constructed signs unless they were written the same way up and facing the same way (for example, to the right or to the left). Nonetheless, the Minoan inscriptions have never been fully accessible to scholars, rendering the information at hand to be derivative at most (Kober, 1948), with scholars having to make their own assumptions at times. The corpus and what we know about Linear A are too scanty that assigning Linear A signs with Linear B sound values as the first step for this paper's methodology, is one of the possible methods to turn to, due to the fact
that this study requires phonetic values to be assigned to the reconstructed Linear A clusters, which will then allow for comparison with other deciphered ancient languages from viable chronology and geography.

Linear B, a syllabic script originating from Linear A and transcribing Archaic Mycenaean Greek, was principally deciphered by Michael Ventris, with assistance from John Chadwick (cf. Chadwick, 1967). Due to the fact that an evidently remarkable amount of the Linear B graphics succeeded Linear A (Mylonas, 1956), many Linear A and Linear B signs bear resemblance to one another and are thus termed 'homomorphic signs' (Salgarella and Castellan, 2021); both Linear A and Linear B are more 'linear' and less pictorial in nature (Chadwick, 1967). There is quite a significant amount of Linear A ideograms bearing resemblance to the ones from Linear B, while the numeral systems of the two writing systems are similar (Davis, 2010). Since Linear B has been deciphered, this paper used the phonetic values of Linear B characters as the cornerstone in the decipherment attempts of Linear A. Moreover, some studies have contended for a number of the Linear A and Linear B signs to be considered 'homophones', i.e., possessing a similar phonetic value (e.g. Steele and Meissner, 2017). Based on the resemblances of Linear A signs to Linear B signs, or the homomorphy-homophony principle (Salgarella and Castellan, 2021), the sound values of their Linear B counterparts have been conditionally allotted to the Linear A signs (Nagy, 1965), which will thus allow a tentative reading of the sequences of the Linear A signs. Each Linear B phonogram represents either a single vowel (V), for example 'A', 'O', or a consonant coupled with a vowel (CV) (Beattie, 1956), for example 'TU'. A number of Linear A strings also seemed to appear to match names, especially toponyms, demonstrated in Linear B texts (Astour, 1967), although the end vowel of the syllabogram seemed to differ (Davis, 2010). This displayed a greater validation that some of the Linear A signs minimally possessed either identical sound values or phonetically close values as their Linear B counterparts. However, studies have revealed that the phonetic values of a significant number of the Linear A characters will not always be identical to the values assigned to them through Linear B. Despite the number of symbols identical to Linear A and Linear B, the direct application of Linear B segmentation and phonetic values on the Linear A script gave rise to unintelligible words (Petrolito et al., 2015). This highlights the impossibility of simply utilising Linear B phonetic values in the decipherment attempts of Linear A. Nonetheless, it may be viable to utilise the phonetic values of Linear B as the basis to the decipherment of Linear A.

Earlier studies of Linear A texts included identifying the syllabic values for certain signs, spotlighting common Linear A and Linear B clusters, differentiating ideograms from phonograms, and pinpointing the respective themes of the various inscriptions (Hooker, 1975). According to Facchetti (1996), the reappearance of a number of Linear A clusters could be plausible toponyms. For instance, there were a few Linear A sign-groups which coincided with clusters that have been deciphered as place-names in Linear B. The clusters include pa-i-to, su-ki-ri-ta and se-to-i-ja. It is then supposed that these three Linear A words may be referencing Linear B sites. However, it is not feasible to use recurring sign-groups in Linear A to point out place-names and personal-names. This is because nothing is known regarding the Minoan language, including possible grammatical features dedicated to toponyms only. Nevertheless, this study is attempting a macro-comparison that has yet been attempted, in order to find possible words and/or cognates in Linear A which could potentially provide clues regarding a possible similarity or relation to other known languages. If successful, it could lead to the decipherment of Linear A.

### 1.3 Previous Decipherment Attempts of Linear A

The justified distinctions between Linear A and Linear B gave rise to the theory that they may be identical writing systems of entirely different languages. As mentioned earlier, there are familiar features between the scripts of Linear A and Linear B, which is mainly the appearance of ideograms. This signified a "common scribal tradition" interlinking these two writing systems through their ortography, although the languages encoding Linear A and Linear B are different (Nagy, 1963). Studies have also been conducted to discover the language encoding Linear A via methods of connecting Linear A with various familiar languages or language families (Facchetti, 2002). Some languages have been brought forward as conceivable language(s) behind Linear A: Greek, Etruscan, Semitic languages or dialects, a language belonging to the Anatolian group, a number of Asia Minor languages, and even Sanskrit. However, results have shown that the entirety of the language cannot be seen as appropriate with any of those, with only several similar suffixes as that of Anatolian or Semitic (Hooker, 1975). Moreover, we should not eliminate any language attested in 3000 BC or 2000 BCE originating around the eastern Mediterranean, especially since Greek was initially not even considered as a prospective language for Linear B (Olivier, 1986).

According to Ventris (1940), a derivative of an Asianic language is the most plausible match for the Minoan language. Although the result is still inconclusive, it seemed to stipulate an Indo-European origin. He stated that the general phonology of Linear A determines it to come under the "Adriatic" family, which includes Illyrian, Venetic and Messapian. The main evidence came from local Cretan toponyms, which are akin to the preHellenic topographic names of mainland Greece, as well as that of the Anatolian coast. These place-names are principally discerned by the suffixes '-ssos', '-inthos', and '-na', as well as multiple similar "name-roots". These suffixes were commonplace in Anatolia and Etruria, in which the "proper names seem to parallel most closely those of Lycia". However, the sole evidence based on similar roots in toponyms should not be generalised to the presupposed language family of Linear A, as it is possible for phonological borrowing. In consensus with the fact that the northern "Pelasgian" area spoke a language almost similar to Etruscan, it is very difficult to distinguish this linguistic area from the southern part, deemed to be the Minoan civilisation. The common phonology connecting Minoan and Etruscan allowed Ventris (1940) to assume that they are both variants of a single "Pelasgian" language, where possible language divisions are understandable in the case of those two dialects being separated by a large sea area, and the passing of close to a thousand years. The historic and geographical evidence allow for the probable relationship between Minoan and Etruscan. Other studies have also tried showcasing a relation between the language encoding Linear A with the Indo-European language family. Palmer (1965) leaned towards Linear A being an Anatolian language part of the Indo-European language family, while Nagy (1963) presented the idea of Linear A as another ancient Greek language belonging to the Indo-European family, because of the symbolic resemblance of Linear B with Linear A. A different study by Owens (1999) suggested Linear A to be a language having relations with Latin, Ancient Greek and Sanskrit. Ventris (1940) and Facchetti (2001, as cited in Perono Cacciafoco 2017) had a different opinion in which Linear A is of an Etruscan origin. The 2002 to 2003 studies carried out by Witzcak and Zawiasa have also sought to verify the Minoan language as IndoEuropean, by recognising Linear A place names in the Minoan 'libation formula'. The 'libation formula' was a group of religious inscriptions inscribed on tables, cups and ladles used during rituals at dawn and contained oil and alcohol (Van der Kerkhof and Rem, 2007).

On the other hand, Gordon (1982) tried working out a plausible connection between the Minoan language and West-Semitic languages, but have been unsuccessful in finding any linguistic affirmation linking Minoan with Semitic. However, an earlier study by Gordon
(1975) found two common words between Minoan and Eteocretan, which is kull- (ku-ro) 'all', as well as $u$ 'and'. It had also been expressed that five Minoan nouns for vases and bowls are in Semitic, and Linear A contains the Akkadian word $k u$-ni-su meaning 'emmer wheat'. Additionally, Aartun (1997) supposed that the birthplace of the Minoan civilisation could be dated back to Semitic, but his work lacked concrete backings as it was mostly based off guesswork. Furthermore, Davis (1959) connected both Linear A and Linear B ideograms to be possible loanwords, highly likely from the Semitic language. In addition, the word $k u$ ro (with its established meaning of 'sum, total') present in both Linear A and Linear B, stemmed from Semitic as it cannot be found in any other language groups. He contended that Semitic trade words were transmitted by the Mesopotamian Semites, following the emergence of their civilisation. However, further studies need to be carried out on each Linear A tablet in order to figure out if Linear A carries only some Semitic loanwords just like Linear B, or if the entirety of Linear A is a Semitic language.

Contrariwise, Bernal's study titled 'Black Athena' (2002), suggesting that Egypt, and possibly the Levant, were cultural and linguistic influencers of the Aegean world, was also mentioned by Knapp (1992). This stand suggested that the Near Eastern influence may have even begun from the earlier half of 2000 BCE , indicating a possibly pivotal function in the foundation of the Greek civilisation. However, such an Egypto-Levantine influence on the Aegean during the Early and Middle Bronze Ages is still a postulation that not all scholars agree with. Olivier (1986) also favoured the possibility of the languages spoken by the population living by the coastal areas of Asia Minor or Syro-Palestine, based on what might be known about the Cretan populace between the Neolithic (end of 7000 BCE) and the start of Early Bronze Age (around 3000 BCE). However, one has to be aware that a timeframe of more than thousands of years may result in a language evolving until it is only faintly bears resemblance to its original form. Between the timeframe of the creation and evolution of both Cretan Hieroglyphic and Linear A (around 3000/2600 BCE - 1450 BCE), it was unlikely that there had been any remarkable change in the population of Crete. As a result, it is unlikely that some foreign language was brought in. Besides, internal analysis of the Linear A documents is the only thing that can be carried out at the moment, due to the lack of any bilingual texts that might enable further comparisons between the languages.

There was also a study conducted by Monti (2002, as cited in Facchetti 2002) which referred to the prospect of the language encoding Linear A to be affiliated with the Hurro-

Urartian languages, which is an obsolete language family from the Ancient Near East. Facchetti (2002) then argued that the overall data studied by Monti was scanty in the sense that his evaluation of his hand-picked morphemic elements, cannot be argued as consequential because it was built upon minor odds. As such, the feasibility of the Linear A language being affiliated with the Hurro-Urartian languages is low. Alternatively, Chapouthier (1930, as cited in Olivier 1986) predicted that both Linear A and Cretan Hieroglyphic, which is also an undeciphered writing system, could have been utilised to log down no less than two languages as they were in synchronous use in a comparatively limited region for several centuries, and also co-occurred under similar accounts. There are many similarities between Linear A and Cretan Hieroglyphic (Younger, 1999), including common configuration of the symbols and the collective 'Archanes Formula', which is repeated arrangement of the exact five signs impressed on seals from Archanes, as well as from Knossos (Decorte, 2018; Ferrara et al., 2021). Despite so, it is still impossible to state if Linear A and Cretan Hieroglyphic were truly transcribing the same language or if they were two separate languages. Basic ideograms specifically signs representing figs, olives, wine, and grains are similar to those in Linear A (and Linear B). Many believe that both Linear A and Cretan Hieroglyphic were potentially utilised to document two different languages, while Perna et al. (2014) think it is not impossible for two different population living in Crete having employed the two varied writing system, though there is no certainty that they spoke either the same or different languages. In the book titled 'Odyssey', the population of Crete was described as consisting of multiple ethnic groups speaking a variety of languages. The Cretan hieroglyphs may have been used to write several languages, just like the Mesopotamian syllabary and the Ugaritic alphabet (Gordon, 1958). Although it is uncertain if that was truly so, later studies can also look into that potentiality. However, most of the previous attempts of 'understanding' Minoan through Linear A were focused, generally, only on one language, selected by the respective scholars for specific, but unproven, reasons (e.g., Ancient Greek, Luwian, Hittite, West Semitic etc. as mentioned), and that is a weakness of more or less all the tradition of studies on Linear A.

### 1.4 Languages for Comparison with Linear A

Brice (1957) suggested that the problem of the Linear Script A may be best approached using a methodical analysis of the arrangement of the signs, without concern for any possible syllabic values, since it might shed some light on the structure of the language involved. Contrariwise, Perono Cacciafoco's (2017) paper commented on the plausibility of
studying the Linear A texts not only through a grammatological standpoint, but also through studying its association with other languages using the symbolic Linear A tablets and its inscriptions. Through his unbiased approach, he compared Linear A with all the possible language candidates without taking into account a possible specific language behind Linear A. This was done in hopes of finding possible words, clues, or cribs, leading scholars in this field towards a possible relevant language. In addition, there should also be an aim to cryptanalysis, listing out and analysing all possible Linear A clusters in order to detect common clusters, as well as potential new ones. This paper then looks to expand on that methodology, presenting various possible Linear A clusters through reconstruction and recombination, taking into consideration the nature of the languages selected for comparison against the Minoan language (Tan, 2018). In this case, the Linear A clusters will not simply be taken at face value, but through an innovative grouping of clusters as a new approach to the deciphering process.

As stated before, Linear A symbols similar to those of Linear B, have been appointed their phonetic values due to the fact that a large number of Linear B graphical elements originated from Linear A. Presuming the imposed phonetic values are accurate and applicable, languages for comparison can be zoomed in on those attested maximally from 3000 BCE to around 1800 BCE , from geographical locations nearby the place of origin of Linear A, specifically the eastern Mediterranean or its neighbouring areas (Oliver, 1986). Furthermore, some writing systems originating from a similar setting may share the characteristic of having identical phonetic values in some of their signs. An example is that of the Mesopotamian and Egyptian Cuneiform and Hieroglyphic writing systems, likely because of their shared acrophonic principle (Davis, 1966). Egypt is a possible source of origin since Crete was already in contact with Egypt then, during a time when a proper script of the Egyptians have already come into existence (Chadwick, 1975).

The origin of the first Cretan settlers is elusive, but the associations suggested by the pottery and other artefacts are with Anatolia and possibly Egypt, rather than with the Greek mainland. Nonetheless, it does not imply the Egyptian language as a possible origin. Instead, Ancient Egyptian can be likely taken as one of the target languages behind the Minoan language. In addition, the study of place-names suggested that a considerable element in the Cretan population may have been related to the Luvians, who, in the Middle and Late Bronze Ages, were established in Asia Minor southwest of the Hittites (Graham, 1962). This paper
will then look into several different languages: common Semitic (the ancestor of all Semitic languages), Hittite, and Middle Egyptian, to identify the possibility of them having influenced the Minoan language.

Semitic and Ancient Egyptian (both being branches of the Afro-Asiatic language family), as well as the Indo-European language family are deciphered and established writing systems that are the most similar in terms of the timeline with Linear A, and their geographical location can be considered to be close to the Aegean. Semitic originates from an area around the east of the Mediterranean (Hetzron, 1997) and possibly originating tentatively during 3800 BCE, as supported by Bayesian studies (Kitchen et al., 2009). This makes the Semitic language both geographically and chronologically ideal for comparison with Linear A. In terms of structure, the most noteworthy feature of Semitic words is the usage of a root-and-pattern formula. Word formation processes in Semitic languages usually occur through the merging of two morphemes: a root and a pattern. The root only consists of consonants, known as radicals, and occur by default in groups of three. Concurrently, the pattern which is a combination of vowels, and sometimes consonants too, contain 'slots' where the root can be attached into. Words are thus formed by applying roots into the various patterns. This means that the consonants of the root-form are used to fill the slots of the pattern, in linear order (Fabri et al., 2014). In addition, most Semitic alphabets are abjads, and include mainly consonants, not vowels. The root-and-pattern system of Semitic words thus allows the comparison of individual roots across languages (Huehnergard and Rubin, 2011). The orthography of Middle Egyptian is the same with Semitic languages. This makes it such that comparison of Linear A clusters with Semitic and Middle Egyptian would then call for the Linear A clusters to simply possess a form of just the consonant of the syllable and individual vowels. As a result, transliterated Linear A terms (using phonetic values from equivalent Linear B symbols) would have to be re-clustered and their accompanying syllabic vowels (from CV structures) would be removed. Majority of the newly combined Linear A clusters would then end up being recombined into consonantal clusters, allowing for a possibly more accurate comparison with the Semitic and Middle Egyptian vocabulary.

Additionally, according to Gordon (1958), during the span of Linear A, there was a sole lingua franca spoken across Western Asia, known as Akkadian. Akkadian was the diplomatic lingua franca of international relations during the Bronze Age. Therefore, we should not ignore the plausible influence of Akkadian on Linear A (Cline, 2014). One
common phenomenon we should take note of is that whenever scribes are aware of various languages written in varied scripts, they may transplant the script from one language to the other, just like that of Akkadian written in the Ugaritic alphabet. As such, the multilingual character of Crete was beneficial in preserving a lingua franca. Ugaritic was considered to be a bridge which stretched across the Hebrew and Greek societies, with Crete being a hub linking them together (Gordon, 1958). Caphtor, the place assumed to be located in the Aegean sea or the southern coast of Asia Minor, was the home of Kōthar, the Ugaritic god of crafts. His Greek counterpart is Hephaistos, who was native to Crete. Furthermore, Capthor has been agreed by a number of scholars to be the same as Keftiu, the ancient Egyptian term for Crete. In the bible, the Philistines migrated from Caphtor to Canaan (Rendsburg, 1996), providing another piece of evidence that the early Minoan civilisation may have been Semites. It is likely that during the time of Linear A, some Mesopotamians were stationed in Hagia Triada and held executive positions, as evidenced by the images on the Harvester Vase (Gordon, 1958). Subsequently, tablets from Babylon and Ugarit have been mentioned by Ventris and Chadwick, as well as Myres, to highlight the correlations in the Semitic Near East with regards to how commodities are listed in the Linear A and Linear B tablets, reiterating the possibility of Linear A being a Semitic language (Davis, 1960). The view of Linear A being closely related to the Semitic language family thus seems highly plausible especially when one notes how Akkadian, which is part of the Semitic family, was the lingua franca used for diplomacy in the time of the Bronze Age. Since Akkadian was in use from 2500 BCE to 500 BCE , it is a well-established ancient language which could possibly have played a role in influencing the language of Linear A.

Semitic languages, which is part of the Afro-Asiatic language family, is considered the most widely spoken subdivision, and constitute ancient languages like Akkadian (an "East Semitic" language of ancient Mesopotamia, with its cuneiform script) and Hebrew (one of the "Northwest Semitic" languages belonging to Syria and Palestine, throughout 1000 BCE). Ancient Egyptian is a branch of the Afro-Asiatic language family. The type of Egyptian spoken during the period of Linear A (from 1800-1450 BCE) include Middle and Late Egyptian. The Middle Egyptian period was a classical period of ancient Egyptian literature, and involved mathematical and scientific texts, letters, juridical records, governmental documents, as well as devotional and mortuary texts. Approximately 700 distinct hieroglyphic symbols were utilised to formulate Middle Egyptian. On the other hand, Late Egyptian only became a proper writing system during the 18th Dynasty, during the
sovereignty of Akhenaten, whereas memorial texts were still inscribed on the walls of New Kingdom temples in some form of Middle Egyptian. However, a copious amount of government records and various sorts of texts from earlier on, such as letters, literary works, medicinal and mystical texts, and which lasted till present day, used Late Egyptian (Bard, 2008). Thus, looking into Middle and Late Egyptian is another possibility.

On a slight divergence, Gardiner (1916) aimed to put a case for an Egyptian hieroglyphic influence on the Proto-Semitic script (so-called ancestor of the Phoenician, Greek and South-Semitic alphabets), especially that of the Phoenician alphabet. There are also some indicators suggesting that Egypt was the place that taught the Semites to write. The first evidence is the geographical location, with Syria located at the north-east and Arab at the east and south-east. Second, the alphabetic and non-vocalic nature of the writing system plays a great role. The omission of the vowels in Egyptian was undoubtedly due in part to the special nature of the language, that of a 'root and pattern' system, which is similar to the Semitic languages. The final evidence is the common acrophonic principle between the two.

On the other hand, there are varying views on the origin of Indo-European languages. A traditional school of thought according to German scholars, identified Indo-European as native to Northern Europe. However, Chide and Gimbutas used linguistic and archaeologic evidence to hypothesise that Indo-European may have originated from a northern area relative to the Black Sea (presently known as Russia), between the late Neolithic period and the beginning of the Bronze Age. This hypothesis was made based on the theory of "Kurgan invasion". Nonetheless, Renfrew (1989) felt that the evidence provided were not meaningful enough to justify said origins of Indo-European. He argued for an alternative viewpoint, in which the rise of farming aided in the spread of Indo-European languages. The ancestry of farming can be traced back to central Anatolia (part of present-day Turkey); archaeological evidence also indicated that regions of the Levant strip (present-day Jordan, Lebanon, Syria and Israel) as well as the Zagros region of Iraq and Iran were also considered to be locations of the origin of farming. These areas can also be considered as areas nearby the eastern Mediterranean. Hittite is viewed as the oldest recorded Indo-European language, belonging to the Anatolian branch, and was assumed to have entered Anatolia before 2000 BC (Stephens, 1979), with the Hittite kingdom having been established since around 1650 BC (Bryce, 2005). This makes Hittite another potential candidate, of the Indo-European language family,
to be compared with Linear A, since it fulfils both the chronological and geographical requirements in relation Linear A.

The ethnicon (the name of a tribe, ethnic group, race or people) 'Ahhiyawa', which have been commonly found in Hittite documents spanning 1400 BCE and 1300 BCE, surely depicts the "contemporary Greek name whose development is in accordance with the regular phonetic processes operative in Greek between 1400 BCE and 800 BCE" (Finkelberg, 1988, pp. 127). However, this hypothesis cannot function as concrete evidence that 'Ahhiyawa' is a Greek word. What can be deduced is that the Greek stem *Akhaiw-, can be presented as a derivative of the stem Ahhiyaw-, through the "application of phonetic regularities attested for the Greek language" (Finkelberg, 1988, pp. 134). Furthermore, based on the analysis of the Cretan Hieroglyphic signs and their values on the Minoan seals, Davis (1966) assumed that the Minoans spoke Hittite. The Minoan seals analysed in his paper have designs consisting of 'circle' and 'cross' signs, in which inscriptions seem to embody the word kuerun meaning 'I cut'. These seals, in the form of pictographic script, seemed to be written in what seems like an early form of Hittite, since they are several centuries earlier than Cuneiform Hittite. The inscriptions on other Minoan seals from Lebena, located on the south coast of Crete, consisted of many which can be linked back to the Early Minoan I interval (c. 2600-2300 BCE), and were in the Hittite language (Davis, 1966).

With the evidence from certain archaeological findings, the Minoan chronology can be compared and correlated with Egypt, Babylon and Hittite's timeline. The appearance of Knossian pottery designs and architecture all over Crete during the last part of Middle Minoan IIB ( 1800 BCE), purported that Knossos may have developed alongside Babylon during the Middle Minoan IIIA, while earthenware produced by the Minoans and found outside of Crete may also hint at possible connections with the ancient Near East (MacGillivray, 2013).

## CHAPTER TWO: METHODOLOGY

### 2.1 Materials Used

Linear A tablets with text inscriptions of at least one cluster (made minimally with two syllabic characters) from Godart and Oliver's (1976-1985) five volumes of GORILA will be used for analysis, with only some texts from volume 4 studied. GORILA is an electronic corpus of the full Linear A corpus available, compiled together with images of the actual inscriptions on the various artefacts, as well as standardised, transliterated interpretations of the inscriptions, in both Linear A and Linear B characters (Oddo, 2007). In order to increase efficiency, the transliterated Linear A characters provided by Godart and Oliver are used in this study, assuming they are accurate. For this thesis, a total of 294 tablets have been analysed and the reconstructed clusters are checked against Semitic, Hittite, and Middle Egyptian dictionaries for possible matches with the words of the three languages respectively. After some analysis, there were 90 tablets selected to be discussed in greater detail. Those artefacts possessed word matches with the reconstructed Linear A clusters and have been assumed to be significant to the plausible context of each artefact. The Hamito-Semitic Dictionary for language decipherment was used to cross-check for possible matching words in Linear A with the Common Semitic language (sometimes termed 'Semitic' here), the ancestor of all Semitic languages; the Dickson Dictionary of Middle Egyptian was used to compare for word matches from Ancient Egyptian; the Hittite dictionary was used to compare words from the Indo-European language with Linear A. These dictionaries have been selected due to their comprehensive nature, including the lemmas available within them. While working on these languages, the author has made an effort to be more informed about them and furthermore, since the author's supervisor has worked on them for over 23 years, the author was in an ideal position to enquire about these languages when issues arose.

### 2.2 Procedure

Through this methodology, the phonetic values of Linear B symbols that are similar to the Linear A characters were first used to transcribe the Linear A texts. Due to the lack of conclusive literature at present, this is the sole way to proceed with the decipherment attempt, making the approach an empirical one. Transliteration results were compared with Younger's works found on his website dedicated to Linear A texts at http://people.ku.edu/~jyounger/LinearA/ to ensure accuracy. Younger is undeniably a leading expert in the field of Linear A and as an authority, his works are considered to be the most
accurate. After which, an innovative segmentation of plausible Linear A lexicon was conducted, resulting in various possibilities of reconstructed Linear A clusters. The segmentation depends on the possible length of the possible words as well as on the target words in the target languages. As such, it is an innovative approach due to the segmentation depending on the approach applied. The method of reconstruction first involves segmenting the clusters of symbols from the Linear A text inscriptions, through the analysis of the graphics on the artefacts. For example, if a group of symbols is separated from another by an obvious break, division, numerals or even logograms, the symbols before the separation are considered to be one 'original' cluster and symbols after the separation is another. The 'original' cluster will then be broken down into various smaller possible combination of clusters containing minimally two characters. Newly reconstructed clusters will then be compared with words from the Mediterranean region chronologically and geographically compatible with the Minoan language of Linear A, in order to find possible correspondences. The three selected writing systems that have been deemed to be chronologically and geographically compatible are that of Afroasiatic, consisting of Semitic and Ancient Egyptian, as well as Indo-European. This methodology is undoubtedly a highly experimental one, but it hopes to bring forth a new understanding on the typology of the language underlying the Linear A texts.

In the case of comparison with Common Semitic and Middle Egyptian (both from branches of the Afroasiatic language family), once the clusters have been transcribed using the phonetic values of the corresponding Linear B symbols, the vowels attached to the syllables will be removed while standalone vowels will remain untouched. It is essential to remember that the removal of the vowels is in no way arbitrary. This is because Afro-Asiatic languages, especially those from the Semitic branch, follow the 'root and pattern' system, where consonants are predominant and affect the meanings of most words (Arcodia, 2013). Following, each transcribed string will be broken up into clusters of two, three or sometimes four, and all possible combinations of the clusters will be taken into consideration. The multiple strings obtained from the original cluster within the Linear A text will then be compared to the Hamito-Semitic dictionary and Dickson Dictionary of Middle Egyptian respectively, to see if matches can be found. If the word in the dictionaries consists of the same consonants, and/or standalone vowels from the reconstructed clusters, that word will be identified as a word match. If there are additional vowels in the word which also matches the
original vowel of the cluster's syllables, prior to its removal, that word will also be considered a match.

Unlike the Afroasiatic phylum, the removal of vowels will not occur during the comparison with Hittite (Indo-European language family) due to the large presence of vowels in the writing system. This time, each transcribed string will simply be broken up into clusters of two, three, four or five, and all possible combinations of the clusters will be taken into consideration. The multiple strings obtained from the original cluster within the Linear A text will then be compared to the Hittite dictionary to see if matches can be found.

Most importantly, the methodology of this paper will assume that the Linear A writing system encompasses largely of lexical terms and as such, only the vocabulary of the three selected languages will be compared, and analysis will also made through the use of their relevant vocabulary words. In no way is the author asserting that only three languages are predisposed to be of relevance. All languages, including proto-Basque and proto-Celtic, could be of relevance to Linear A as it is undeciphered and nothing is known about the Minoan language. To reiterate, the target languages for comparison has been narrowed down to three due to the nature of this methodology, which takes into account the factor of trade, geography and chronology.

## CHAPTER THREE: LINEAR A CLUSTERS

In this chapter, all the artefacts analysed have been presented in terms of the Linear A strings as seen from the GORILA database, transliterated in terms of Linear B phonetic values. After which, reconstructed clusters have been grouped into tables, according to original cluster groups observed according to breaks on the artefacts, be it a physical breakage or breaks represented by numbers, logograms or implied punctuations. Only Linear A characters deemed to be part of a cluster are transliterated and listed below, with ' $\mid$ ' indicating a break or transition to a different cluster. Logograms, as well as the numerical system, will not be included here. Each group of Linear A signs, which have been transcribed into the various strings in each subsection, has also been bracketed in red in each of the attached images obtained from GORILA.

### 3.1 Artefact HT 1

Transcription of Linear A characters on artefact HT 1 yielded strings under four distinct rows of clusters:
a. QE-RA-U|KI-RO $\mid$
b. ZA-SU|DI-DI
c. ZA-KE|KU-PA-NU|
d. A-RA-NA-RE

HT 1

$$
\begin{aligned}
& \text {. }(\bigcirc 77+) \cdot(\forall \forall) \circ \equiv \equiv \equiv
\end{aligned}
$$

$$
\begin{aligned}
& 5 \text { racat }
\end{aligned}
$$

Image 1. Standardised inscription of HT 1, obtained from GORILA 1

### 3.1.1 Common Semitic / Middle Egyptian

| Q-R-U |  |  |
| :---: | :---: | :---: |
| Q-R | R-U |  |
|  | K-R |  |

Table 1.1.1. Combination of clusters from HT 1 (a)

## Z-S

Table 1.1.2. Combination of clusters from HT 1 (b)

| D-D-Z-K |  |  |
| :---: | :---: | :---: |
| D-D-Z | D-D | D-Z |
| D-Z-K | Z-K |  |

Table 1.1.3. Combination of clusters from HT 1 (b)-(c)

| K-P-N |  |
| :---: | :---: |
| K-P | P-N |

Table 1.1.4. Combination of clusters from HT 1 (c)

| A-R-N-R |  |  |
| :---: | :---: | :---: |
| A-R-N | A-R | R-N |
| R-N-R | N-R |  |

Table 1.1.5. Combination of clusters from HT 1 (d)

### 3.1.2 Hittite

| QE-RA-U |  |  |
| :---: | :---: | :---: |
| QE-RA | RI-RO |  |

Table 1.2.1. Combination of clusters from HT 1 (a)

## ZA-SU

Table 1.2.2. Combination of clusters from HT 1 (b)

| DI-DI-ZA-KE |  |  |
| :---: | :---: | :---: |
| DI-DI-ZA | DI-DI | DI-ZA |
| DI-ZA-KE | ZA-KE |  |

Table 1.2.3. Combination of clusters from HT 1 (b)-(c)

| KU-PA-NU |  |  |
| :---: | :---: | :---: |
| KU-PA | PA-NU |  |

Table 1.2.4. Combination of clusters from HT 1 (c)

| A-RA-NA-RE |  |  |
| :---: | :---: | :---: |
| A-RA-NA | A-RA | RA-NA |
| RA-NA-RE | NA-RE |  |

Table 1.2.5. Combination of clusters from HT 1 (d)

### 3.2 Artefact HT 2

Transcription of Linear A characters on artefact HT 2 yielded strings under two distinct rows of clusters:
a. A-KA-RU
b. KI-RE-TA-NA *610

HT 9


Image 2. Standardised inscription of HT 2, obtained from GORILA 1
3.2.1 Common Semitic / Middle Egyptian

| A-K-R |  |
| :---: | :---: |
| A-K | K-R |

Table 2.1.1. Combination of clusters from HT 2 (a)

| K-R-T-N |  |  |
| :---: | :---: | :---: |
| K-R-T | K-R | R-T |
| R-T-N | T-N |  |

Table 2.1.2. Combination of clusters from HT 2 (b)

### 3.2.2 Hittite

| A-KA-RU |  |
| :---: | :---: |
| A-KA | KA-RU |

Table 2.2.1. Combination of clusters from HT 2 (a)

| KI-RE-TA-NA |  |  |
| :---: | :---: | :---: |
| KI-RE-TA | KI-RE | RE-TA |
| RE-TA-NA | TA-NA |  |

Table 2.2.2. Combination of clusters from HT 2 (b)

### 3.3 Artefact HT 3

Transcription of Linear A characters on artefact HT 3 yielded strings under six distinct rows of clusters:
a. $\mid$ DI-NA $\mid$
b. |QE-RA-JA $\mid$
c. $M U-R U \mid$
d. SI-TU-RA-RE |
e. KU-PA-NU |
f. MA-DI |

HT 5


Image 3. Standardised inscription of HT 3, obtained from GORILA 1
3.3.1 Common Semitic / Middle Egyptian

D-N
Table 3.1.1. Combination of clusters from HT 3 (a)

| Q-R-J |  |
| :---: | :---: |
| Q-R | R-J |

Table 3.1.2. Combination of clusters from HT 3 (b)

## M-R

Table 3.1.3. Combination of clusters from HT 3 (c)

| S-T-R-R |  |  |
| :---: | :---: | :---: |
| S-T-R | S-T | T-R |
| T-R-R | R-R |  |

Table 3.1.4. Combination of clusters from HT 3 (d)

| K-P-N |  |  |
| :---: | :---: | :---: |
| K-P | P-N |  |

Table 3.1.5. Combination of clusters from HT 3 (e)

## M-D

Table 3.1.6. Combination of clusters from HT 3 (f)

## DI-NA

Table 3.2.1. Combination of clusters from HT 3 (a)

| QE-RA-JA |  |  |
| :---: | :---: | :---: |
| QE-RA | RA-JA |  |

Table 3.2.2. Combination of clusters from HT 3 (b)

## MU-RU

Table 3.2.3. Combination of clusters from HT 3 (c)

| SI-TU-RA-RE |  |  |
| :---: | :---: | :---: |
| SI-TU-RA | SI-TU | TU-RA |
| TU-RA-RE | RA-RE |  |

Table 3.2.4. Combination of clusters from HT 3 (d)

| KU-PA-NU |  |  |
| :---: | :---: | :---: |
| KU-PA | PA-NU |  |

Table 3.2.5. Combination of clusters from HT 3 (e)

## MA-DI

Table 3.2.6. Combination of clusters from HT 3 (f)

### 3.4 Artefact HT 4

Transcription of Linear A characters on artefact HT 4 yielded strings under three distinct rows of clusters:
a. *306 TI-KA-A-RE
b. |DU-RI-TE |PA-RE
c. |TA-PI-SI-DI

## IIT 4



Image 4. Standardised inscription of HT 4, obtained from GORILA 1

### 3.4.1 Common Semitic / Middle Egyptian

| T-K-A-R |  |  |
| :---: | :---: | :---: |
| T-K-A | T-K | K-A |
| K-A-R | A-R |  |

Table 4.1.1. Combination of clusters from HT 4 (a)

| D-R-T |  |  |
| :---: | :---: | :---: |
| D-R | P-R |  |

Table 4.1.2. Combination of clusters from HT 4 (b)

| T-P-S-D |  |  |
| :---: | :---: | :---: |
| T-P-S | T-P | P-S |
| P-S-D | S-D |  |

Table 4.1.3. Combination of clusters from HT 4 (c)
3.4.2 Hittite

| TI-KA-A-RE |  |  |
| :---: | :---: | :---: |
| TI-KA-A | TI-KA | KA-A |
| KA-A-RE | A-RE |  |

Table 4.2.1. Combination of clusters from HT 4 (a)

| DU-RI-TE |  |  |
| :---: | :---: | :---: |
| DU-RI |  | RI-TE |
|  | PA-RE |  |

Table 4.2.2. Combination of clusters from HT 4 (b)

| TA-PI-SI-DI |  |  |
| :---: | :---: | :---: |
| TA-PI-SI | TA-PI | PI-SI |
| PI-SI-DI | SI-DI |  |

Table 4.2.3. Combination of clusters from HT 4 (c)

### 3.5 Artefact HT 5

Transcription of Linear A characters on artefact HT 5 yielded strings under two distinct rows of clusters:
a. $\mid$ MA-SI $\mid$
b. |WI-DU |

II' : $\mathbf{3}$


Image 5. Standardised inscription of HT 5, obtained from GORILA 1
3.5.1 Common Semitic / Middle Egyptian

## M-S

Table 5.1.1. Combination of clusters from HT 5 (a)

## W-D

Table 5.1.2. Combination of clusters from HT 5 (b)

### 3.5.2 Hittite

## MA-SI

Table 5.2.1. Combination of clusters from HT 5 (a)

## WI-DU

Table 5.2.2. Combination of clusters from HT 5 (b)

### 3.6 Artefact HT 6a

Transcription of Linear A characters on artefact HT 6a yielded strings under six distinct rows of clusters:
a. KA-PA|DA-TA-RA
b. |PI-TA-JA
c. $\mid$ MA-*321
d. O-RA-DI-NE |KA
e. PA-QE
f. DA-QE-RA \| QE-PI-TA

$$
\begin{aligned}
& \text { * - (曲》平开) } \\
& \text { sキ@]!"! }
\end{aligned}
$$

$$
\begin{aligned}
& .7=1 \frac{1}{7} x y-{ }_{111}<
\end{aligned}
$$

Image 6．Standardised inscription of HT 6a，obtained from GORILA 1

## 3．6．1 Common Semitic／Middle Egyptian

| K－P |  |  |
| :---: | :---: | :---: |
| D－T－R |  |  |
| D－T | T－R |  |

Table 6．1．1．Combination of clusters from HT 6a（a）

| P－T－J |  |
| :---: | :---: |
| P－T | T－J |

Table 6．1．2．Combination of clusters from HT 6a（b）

| O－R－D－N |  |  |
| :---: | :---: | :---: |
| O－R－D | O－R | R－D |
| R－D－N | D－N |  |

Table 6．1．3．Combination of clusters from HT 6a（d）

|  | K－P－Q |
| :---: | :---: |
| K－P | P－Q |

Table 6．1．4．Combination of clusters from HT 6a（d）－（e）

| D－Q－R |  |  |
| :---: | :---: | :---: |
| D－Q | Q－R |  |
| Q－P－T |  |  |
| Q－P |  | P－T |

Table 6．1．5．Combination of clusters from HT 6a（f）

## 3．6．2 Hittite

| KA－PA |
| :---: |
| DA－TA－RA |

DA-TA TA-RA

Table 6.2.1. Combination of clusters from HT 6a (a)

| PI-TA-JA |  |  |
| :---: | :---: | :---: |
| PI-TA | TA-JA |  |

Table 6.2.2. Combination of clusters from HT 6a (b)

| O-RA-DI-NE |  |  |
| :---: | :---: | :---: |
| O-RA-DI | O-RA | RA-DI |
| RA-DI-NE | DI-NE |  |

Table 6.2.3. Combination of clusters from HT 6a (d)

| KA-PA-QE |  |
| :---: | :---: |
| KA-PA PA-QE |  |

Table 6.2.4. Combination of clusters from HT 6a (d)-(e)

| DA-QE-RA |  |  |
| :---: | :---: | :---: |
| DA-QE |  | QE-RA |
|  | QE-PI-TA |  |
| QE-PI |  | PI-TA |

Table 6.2.5. Combination of clusters from HT 6a (f)

### 3.7 Artefact HT 6b

Transcription of Linear A characters on artefact HT 6b yielded strings under six distinct rows of clusters:
a. WA-DU-NI-MI
b. |RA-TI-SE |MA
c. RI-SI-I |
d. DU-DA-MA|
e. DA-KI|SA-MA|
f. PA-NI-NA

$$
\begin{aligned}
& \text { HT 6b }
\end{aligned}
$$

$$
\begin{aligned}
& 3244]_{1}^{\prime \prime}
\end{aligned}
$$

### 3.7.1 Common Semitic / Middle Egyptian

| W-D-N-M |  |  |
| :---: | :---: | :---: |
| W-D-N | W-D | D-N |
| D-N-M | N-M |  |

Table 7.1.1. Combination of clusters from HT 6b (a)

| R-T-S |  |
| :---: | :---: |
| R-T | T-S |

Table 7.1.2. Combination of clusters from HT 6b (b)

| M-R-S-I |  |  |
| :---: | :---: | :---: |
| M-R-S | M-R | R-S |
| R-S-I | S-I |  |

Table 7.1.3. Combination of clusters from HT 6b (b)-(c)

| D-D-M |  |  |
| :---: | :---: | :---: |
| D-D | D-M |  |

Table 7.1.4. Combination of clusters from HT 6b (d)

| D-K |
| :---: |
| S-M |

Table 7.1.5. Combination of clusters from HT 6b (e)

| P-N-N |  |
| :---: | :---: |
| P-N | N-N |

Table 7.1.6. Combination of clusters from HT 6b (f)

### 3.7.2 Hittite

| WA-DU-NI-MI |  |  |
| :---: | :---: | :---: |
| WA-DU-NI | WA-DU | DU-NI |
| DU-NI-MI | NI-MI |  |

Table 7.2.1. Combination of clusters from HT 6b (a)

| RA-TI-SE |  |
| :---: | :---: | :---: |
| RA-TI |  |

Table 7.2.2. Combination of clusters from HT 6b (b)

| MA-RI-SI-I |  |  |
| :---: | :---: | :---: |
| MA-RI-SI | MA-RT | RI-SI |
| RI-SI-I | SI-I |  |

Table 7.2.3. Combination of clusters from HT 6b (b)-(c)

| DU-DA-MA |  |
| :---: | :---: |
| DU-DA | DA-MA |

Table 7.2.4. Combination of clusters from HT Gb (d)

| DA-KI |
| :---: |
| SA-MA |

Table 7.2.5. Combination of clusters from HT bb (e)

| PA-NI-NA |  |
| :---: | :---: |
| PA-NI | NI-NA |

Table 7.2.6. Combination of clusters from HT bb (f)

### 3.8 Artefact HT Ta

Transcription of Linear A characters on artefact HT Ta yielded strings under five distinct rows of clusters:
a. QE-TI|
b. I-RU-JA |
c. DU-JA |
d. TA-NA-TI |DA-RE
e. |TE-TU

HT Z ut


Image 8. Standardised inscription of HT 7a, obtained from GORILA 1

### 3.8.1 Common Semitic / Middle Egyptian

Q-T

Table 8.1.1. Combination of clusters from HT 7a (a)

|  | I-R-J |
| :---: | :---: |
| I-R | R-J |

Table 8.1.2. Combination of clusters from HT Fa (b)

## D-J

Table 8.1.3. Combination of clusters from HT 7a (c)

| T-N-T |  |  |
| :---: | :---: | :---: |
| T-N | D-R |  |
|  |  |  |

Table 8.1.4. Combination of clusters from HT 7a (d)

## T-T

Table 8.1.5. Combination of clusters from HT 7a (e)

## QE-TI

Table 8.2.1. Combination of clusters from HT 7a (a)

| I-RU-JA |  |
| :---: | :---: |
| I-RU | RU-JA |

Table 8.2.2. Combination of clusters from HT 7a (b)

## DU-JA

Table 8.2.3. Combination of clusters from HT 7a (c)

| TA-NA-TI |  |
| :---: | :---: | :---: |
| TA-NA | NA-TI |
| DA-RE |  |

Table 8.2.4. Combination of clusters from HT 7a (d)

## TE-TU

Table 8.2.5. Combination of clusters from HT 7a (e)

### 3.9 Artefact HT 7b

Transcription of Linear A characters on artefact HT 7b yielded strings under two distinct rows of clusters:
a. QI-TU-NE
b. DA-RU *329

HT 7b


3-4 vacant
Image 9. Standardised inscription of HT 7b, obtained from GORILA 1

### 3.9.1 Common Semitic / Middle Egyptian

| Q-T-N |  |
| :---: | :---: |
| Q-T | T-N |

Table 9.1.1. Combination of clusters from HT 7b (a)
$\square$
D-R
Table 9.1.2. Combination of clusters from HT 7b (b)
3.9.2 Hittite

|  | QI-TU-NE |
| :---: | :---: | :---: |
| QI-TU | TU-NE |

Table 9.2.1. Combination of clusters from HT 7b (a)

## DA-RU

Table 9.2.2. Combination of clusters from HT 7b (b)

### 3.10 Artefact HT 8a

Transcription of Linear A characters on artefact HT 8a yielded strings under five distinct rows of clusters:
a. JE-DI *618|PA
b. KA-RA-TI
c. $\mathrm{TE} * 301 \mid \mathrm{QA} * 310 \mathrm{I}$
d. $\mid$ SI-KI-RA $\mid$
e. KI-RE-TA-NA


Image 10. Standardised inscription of HT 8a, obtained from GORILA 1

### 3.10.1 Common Semitic / Middle Egyptian

## J-D

Table 10.1.1. Combination of clusters from HT 8a (a)

## K-R-T

| K-R | R-T |
| :---: | :---: |

Table 10.1.2. Combination of clusters from HT 8a (b)

| S-K-R |  |
| :---: | :--- |
| S-K | K-R |

Table 10.1.3. Combination of clusters from HT 8a (d)

| K-R-T-N |  |  |
| :---: | :---: | :---: |
| K-R-T | K-R | R-T |
| R-T-N | T-N |  |

Table 10.1.4. Combination of clusters from HT 8a (e)

### 3.10.2 Hittite

## JE-DI

Table 10.2.1. Combination of clusters from HT 8a (a)

| KA-RA-TI |  |  |
| :---: | :---: | :---: |
| KA-RA | RA-TI |  |

Table 10.2.2. Combination of clusters from HT 8a (b)

| SI-KI-RA |  |
| :---: | :---: |
| SI-KI | KI-RA |

Table 10.2.3. Combination of clusters from HT 8a (d)

| KI-RE-TA-NA |  |  |
| :---: | :---: | :---: |
| KI-RE-TA | KI-RE | RE-TA |
| RE-TA-NA | TA-NA |  |

Table 10.2.4. Combination of clusters from HT 8a (e)

### 3.11 Artefact HT 8b

Transcription of Linear A characters on artefact HT 8b yielded strings under four distinct rows of clusters:
a. SU-PU *188
b. $|\mathrm{PA} * 188| \mathrm{QA} * 310$
c. $\mathrm{I}|\mathrm{KA}-\mathrm{PA}|$
d. PA-JA-RE


Image 11. Standardised inscription of HT 8b, obtained from GORILA 1

### 3.11.1 Common Semitic / Middle Egyptian

## S-P

Table 11.1.1. Combination of clusters from HT 8 b (a)
$\square$
K-P
Table 11.1.2. Combination of clusters from HT 8 b (c)

|  | P-J-R |
| :---: | :---: |
| P-J | J-R |

Table 11.1.3. Combination of clusters from HT 8b (d)

### 3.11.2 Hittite

## SU-PU

Table 11.2.1. Combination of clusters from HT 8 b (a)

## KA-PA

Table 11.2.2. Combination of clusters from HT 8b (c)

| PA-JA-RE |  |
| :---: | :---: |
| P-J | J-R |

Table 11.2.3. Combination of clusters from HT 8b (d)

### 3.12 Artefact HT 9a

Transcription of Linear A characters on artefact HT 9a yielded strings under six distinct rows of clusters:
a. SA-RO |
b. PA-DE | *306 TU
c. $\mid$ DI-NA-U | QE-PU
d. |*324 DI-RA | TA
e．$I * 123 \mid A-R U$
f．｜KU－RO
HTT 9a

$$
\begin{aligned}
& \text {. }(Y+) \text {. 丰. 厈. }
\end{aligned}
$$

$$
\begin{aligned}
& .5 \text { * \& } \\
& 6 \quad 117(7+)=-1 \frac{5}{7}
\end{aligned}
$$

Image 12．Standardised inscription of HT 9a，obtained from GORILA 1

## 3．12．1 Common Semitic／Middle Egyptian

## S－R

Table 12．1．1．Combination of clusters from HT 9a（a）
P－D

Table 12．1．2．Combination of clusters from HT 9a（b）

| $\mathbf{D - N}-\mathbf{U}$ |  |  |
| :---: | :---: | :---: |
| D－N | $\mathbf{Q - P}$ | $\mathrm{N}-\mathrm{U}$ |

Table 12．1．3．Combination of clusters from HT 9a（c）

## D－R

Table 12．1．4．Combination of clusters from HT 9a（d）

## A－R

Table 12．1．5．Combination of clusters from HT 9a（e）

## K－R

Table 12．1．6．Combination of clusters from HT 9a（f）

## SA－RO

Table 12．2．1．Combination of clusters from HT 9a（a）

## PA－DE

Table 12．2．2．Combination of clusters from HT 9a（b）

| DI-NA-U |  |
| :---: | :---: |
| DI-NA | NA-U |
|  | QE-PU |

Table 12.2.3. Combination of clusters from HT 9a (c)

## DI-RA

Table 12.2.4. Combination of clusters from HT 9a (d)

## A-RU

Table 12.2.5. Combination of clusters from HT 9a (e)

## KU-RO

Table 12.2.6. Combination of clusters from HT 9a (f)

### 3.13 Artefact HT 9b

Transcription of Linear A characters on artefact HT 9b yielded strings under six distinct rows of clusters:
a. |WA-JA-PI|
b. KA *305 | PA-DE | A-SI
c. $|* 306 \mathrm{TU}| * 324$ DI-RA $\mid$
d. QE-PU | TA-I * 123 |
e. DI-NA-U |
f. KU-RO

HT : $\%$

$$
\begin{aligned}
& .4(\odot \Omega) i(5 \nLeftarrow \&): \\
& \text {.s }\left[\begin{array}{cc}
\pi & \overline{1} f
\end{array}\right] \\
& .6\left(\frac{3}{3}+\right)=111
\end{aligned}
$$

Image 13. Standardised inscription of HT 9b, obtained from GORILA 1
3.13.1 Common Semitic / Middle Egyptian

|  | W-J-P |  |
| :---: | :---: | :---: |
| W-J |  | J-P |

Table 13.1.1. Combination of clusters from HT 9b (a)

## P-D <br> A-S

Table 13.1.2. Combination of clusters from HT 9b (b)

## D-R

Table 13.1.3. Combination of clusters from HT 9b I

| Q-P |
| :---: |
| T-I |

Table 13.1.4. Combination of clusters from HT 9b (d)

| D-N-U |  |  |
| :---: | :---: | :---: |
| D-N | N-U |  |

Table 13.1.5. Combination of clusters from HT 9b (e)

K-R
Table 13.1.6. Combination of clusters from HT 9b (f)

### 3.13.2 Hittite

| WA-JA-PI |  |
| :---: | :---: |
| WA-JA JA-PI |  |

Table 13.2.1. Combination of clusters from HT 9b (a)

| PA-DE |
| :---: |
| A-SI |

Table 13.2.2. Combination of clusters from HT 9b (b)

## DI-RA

Table 13.2.3. Combination of clusters from HT 9b (c)

## QE-PU <br> TA-I

Table 13.2.4. Combination of clusters from HT 9b (d)

| DI-NA-U |  |
| :---: | :---: |
| DI-NA | NA-U |

Table 13.2.5. Combination of clusters from HT 9b (e)

## KU-RO

Table 13.2.6. Combination of clusters from HT 9b (f)

## 3．14 Artefact HT 10a

Transcription of Linear A characters on artefact HT 10a yielded strings under four distinct rows of clusters：
a．KU－NI－SU｜SA－MA｜
b．｜DA－RE｜
c．$|\mathrm{U} * 325 \mathrm{ZA}| * 305 \mathrm{RU}$
d．｜DA－RI－DA｜ME－ZA HT 10a

$$
\begin{aligned}
& \text { * k9+" } \\
& \text { ・キ1r } 4 \text { ) - "ick }
\end{aligned}
$$

$$
\begin{aligned}
& 4 \text { i< (F2F) } \operatorname{li口1}_{111}^{f}(\%)
\end{aligned}
$$

Image 14．Standardised inscription of HT 10a，obtained from GORILA 1

3．14．1 Common Semitic／Middle Egyptian

| K－N－S |  |  |
| :---: | :---: | :---: |
| K－N | N－S |  |
| $\mathbf{S - M}$ |  |  |

Table 14．1．1．Combination of clusters from HT 10a（a）

## D－R

Table 14．1．2．Combination of clusters from HT 10a（b）

| D－R－D |  |  |
| :---: | :---: | :---: |
| D－R | R－D |  |
|  | $\mathbf{M - Z}$ |  |

Table 14．1．3．Combination of clusters from HT 10a（d）

## 3．14．2 Hittite

| KU－NI－SU |  |  |
| :---: | :---: | :---: |
| KU－NI |  | NI－SU |
| SA－MA |  |  |

Table 14．2．1．Combination of clusters from HT 10a（a）

## DA－RE

Table 14.2.2. Combination of clusters from HT 10a (b)

|  | DA-RI-DA |  |
| :---: | :---: | :---: |
| DA-RI | RI-DA |  |
|  | ME-ZA |  |

Table 14.2.3. Combination of clusters from HT 10a (d)

### 3.15 Artefact HT 10b

Transcription of Linear A characters on artefact HT 10b yielded strings under four distinct rows of clusters:
a. U-TI $\mid$ DA-RE|TA
b. RI-NA $\mid * 312$ TA $\mid$
c. KA-SA-RU |
d. TA-NA-TI

HT 10b

$$
\begin{aligned}
& \text { a } 1(t \cap)](t-4):[t
\end{aligned}
$$

$$
\begin{aligned}
& \text { s( } \oplus \text { Y ¢) }:! \\
& \text { 4 (CTA) "um" }
\end{aligned}
$$

Image 15. Standardised inscription of HT 10b, obtained from GORILA 1
3.15.1 Common Semitic / Middle Egyptian

| U-T |
| :--- |
| D-R |

Table 15.1.1. Combination of clusters from HT 10b (a)

| T-R-N |  |
| :---: | :---: |
| T-R | R-N |

Table 15.1.2. Combination of clusters from HT 10b (a)-(b)

| K-S-R |  |
| :---: | :---: | :---: |
| K-S | S-R |

Table 15.1.3. Combination of clusters from HT 10 b ©

| T-N-T |  |  |
| :---: | :---: | :---: |
| T-N | N-T |  |

Table 15.1.4. Combination of clusters from HT 10b (d)
3.15.2 Hittite

| U-TI |
| :---: |
| DA-RE |

Table 15.2.1. Combination of clusters from HT 10b (a)

| TA-RI-NA |  |
| :---: | :---: |
| TA-RI | RI-NA |

Table 15.2.2. Combination of clusters from HT 10b (a)-(b)

| KA-SA-RU |  |  |
| :---: | :---: | :---: |
| KA-SA | SA-RU |  |

Table 15.2.3. Combination of clusters from HT 10b (c)

| TA-NA-TI |  |
| :---: | :---: |
| TA-NA | NA-TI |

Table 15.2.4. Combination of clusters from HT 10b (d)

### 3.16 Artefact HT 11a

Transcription of Linear A characters on artefact HT 11a yielded strings under four distinct rows of clusters:
a. A-RU-RA |
b. $\mid$ KA-RO-NA $\mid$
c. *322 RI $|\mathrm{KU}-\mathrm{RO}| \mathrm{A}$
d. SU-JA


Image 16. Standardised inscription of HT 11a, obtained from GORILA 1

### 3.16.1 Common Semitic / Middle Egyptian

| A-R-R |  |
| :---: | :---: |
| A-R | R-R |

Table 16.1.1. Combination of clusters from HT 11a (a)

## K-R-N

| K－R | R－N |
| :---: | :---: |

Table 16．1．2．Combination of clusters from HT 11a（b）
$\square$

## K－R

Table 16．1．3．Combination of clusters from HT 11a（c）

## S－J

Table 16．1．4．Combination of clusters from HT 11a（d）

3．16．2 Hittite

| A－RU－RA |  |  |
| :---: | :---: | :---: |
| A－RU | RU－RA |  |

Table 16．2．1．Combination of clusters from HT 11a（a）

| KA－RO－NA |  |
| :---: | :---: |
| KA－RO | RO－NA |

Table 16．2．2．Combination of clusters from HT 11a（b）

## KU－RO

Table 16．2．3．Combination of clusters from HT 11a（c）

## SU－JA

Table 16．2．4．Combination of clusters from HT 11a（d）

## 3．17 Artefact HT 11b

Transcription of Linear A characters on artefact HT 11b yielded strings under five distinct rows of clusters：
a． $\mid$ DE－NU｜RU－RA
b．｜RU－ZU－NA
c． $\mid$ SA－QE－RI $\mid$
d．｜KU－RO
HT Hb
1 罧刖（个 4 4）：
$\therefore$ 必 $\oplus$ シ $\oplus$ ：
${ }^{3} \oplus: \because\left(\psi^{*} \bar{i}\right)$
$4 \oplus=-(Y \odot z)$ ．
s $\oplus=-$（3t）
6 ○ミミ

Image 17. Standardised inscription of HT 11b, obtained from GORILA 1
3.17.1 Common Semitic / Middle Egyptian

| D-N |
| :--- |
| $\mathbf{R - R}$ |

Table 17.1.1. Combination of clusters from HT 11b (a)

| R-Z-N |  |
| :---: | :---: |
| R-Z | Z-N |

Table 17.1.2. Combination of clusters from HT 11b (b)

| S-Q-R |  |  |
| :---: | :---: | :---: |
| S-Q | Q-R |  |

Table 17.1.3. Combination of clusters from HT 11b ©

## K-R

Table 17.1.4. Combination of clusters from HT 11b (d)

### 3.17.2 Hittite

| DE-NU |
| :--- |
| RU-RA |

Table 17.2.1. Combination of clusters from HT 11b (a)

| RU-ZU-NA |  |
| :---: | :---: |
| RU-ZU | ZU-NA |

Table 17.2.2. Combination of clusters from HT 11b (b)

| SA-QE-RI |  |  |
| :---: | :---: | :---: |
| SA-QE | QE-RI |  |

Table 17.2.3. Combination of clusters from HT 11b (c)

## KU-RO

Table 17.2.4. Combination of clusters from HT 11b (d)

### 3.18 Artefact HT 12

Transcription of Linear A characters on artefact HT 12 yielded strings under three distinct rows of clusters:
a. QA-TI-DA-TE
b. QE-TU-NE |
c. DA-I


Image 18. Standardised inscription of HT 12, obtained from GORILA 1

### 3.18.1 Common Semitic / Middle Egyptian

| Q-T-D-T |  |  |
| :---: | :---: | :---: |
| Q-T-D | Q-T | T-D |
| T-D-T | D-T |  |

Table 18.1.1. Combination of clusters from HT 12 (a)

| Q-T-N |  |
| :---: | :---: |
| Q-T | T-N |

Table 18.1.2. Combination of clusters from HT 12 (b)

## D-I

Table 18.1.3. Combination of clusters from HT 12 (c)

### 3.18.2 Hittite

| QA-TI-DA-TE |  |  |
| :---: | :---: | :---: |
| QA-TI-DA | QA-TI | TI-DA |
| TI-DA-TE | DA-TE |  |

Table 18.2.1. Combination of clusters from HT 12 (a)

| QE-TU-NE |  |
| :---: | :---: |
| QE-TU | TU-NE |

Table 18.2.2. Combination of clusters from HT 12 (b)

## DA-I

Table 18.2.3. Combination of clusters from HT 12 (c)

### 3.19 Artefact HT 13

Transcription of Linear A characters on artefact HT 13 yielded strings under seven distinct rows of clusters:
a．KA－U－DE－TA
b． $\mid$ RE－ZA $\mid$
c．TE－TU $\mid$ TE－KI
d．｜KU－ZU－NI｜
e．DA－SI＊118｜I－DU
f．NE－SI｜
g．KU－RO
H＇T 15

$$
\begin{aligned}
& .1(\oplus \nmid \bar{\alpha})
\end{aligned}
$$

$$
\begin{aligned}
& \text { } 3 \text { (丰 } \Phi \text { ): : : 品 (丰自) }
\end{aligned}
$$

$$
\begin{aligned}
& { }^{6} \text { 耳 } 4 \text { ] } 11 \\
& 7(3+) 0: \cdot c
\end{aligned}
$$

Image 19．Standardised inscription of HT 13，obtained from GORILA 1

## 3．19．1 Common Semitic／Middle Egyptian

| K－U－D－T |  |  |
| :---: | :---: | :---: |
| K－U－D | K－U | U－D |
| U－D－T | D－T |  |

Table 19．1．1．Combination of clusters from HT 13 （a）

## R－Z

Table 19．1．2．Combination of clusters from HT 13 （b）

| $\mathbf{T}-\mathbf{T}$ |
| :---: |
| $\mathbf{T}-\mathbf{K}$ |

Table 19．1．3．Combination of clusters from HT 13 （c）

| K－Z－N |  |
| :---: | :---: |
| K－Z | Z－N |

Table 19．1．4．Combination of clusters from HT 13 （d）

## D－S

Table 19．1．5．Combination of clusters from HT 13 （e）

## I－D－N－S

| I-D-N | I-D | D-N |
| :---: | :---: | :---: |
| D-N-S | N-S |  |

Table 19.1.6. Combination of clusters from HT 13 (e)-(f)
K-R

Table 19.1.7. Combination of clusters from HT 13 (g)

### 3.19.2 Hittite

| KA-U-DE-TA |  |  |
| :---: | :---: | :---: |
| KA-U-DE | KA-U | U-DE |
| U-DE-TA | DE-TA |  |

Table 19.2.1. Combination of clusters from HT 13 (a)

## RE-ZA

Table 19.2.2. Combination of clusters from HT 13 (b)

| TE-TU |
| :--- |
| TE-KI |

Table 19.2.3. Combination of clusters from HT 13 (c)

| KU-ZU-NI |  |
| :---: | :---: |
| KU-ZU | ZU-NI |

Table 19.2.4. Combination of clusters from HT 13 (d)

## DA-SI

Table 19.2.5. Combination of clusters from HT 13 (e)

| I-DU-NE-SI |  |  |
| :---: | :---: | :---: |
| I-DU-NE | I-DU | DU-NE |
| DU-NE-SI | NE-SI |  |

Table 19.2.6. Combination of clusters from HT 13 (e)-(f)

## KU-RO

Table 19.2.7. Combination of clusters from HT 13 (g)

### 3.20 Artefact HT 14

Transcription of Linear A characters on artefact HT 14 yielded strings under one distinct row of cluster:
a. A-PU-NA-DU

$$
\begin{aligned}
& 1 \text { 必 } \sqrt{17} \cdot \neq \Psi=-\xi!
\end{aligned}
$$

$$
\begin{aligned}
& 4 \text { シ シ" ジッ " } \\
& 5 \text { ツー! [ } \\
& 6 \text { vacat [ }
\end{aligned}
$$

Image 20．Standardised inscription of HT 14，obtained from GORILA 1

## 3．20．1 Common Semitic／Middle Egyptian

| A－P－N－D |  |  |
| :---: | :---: | :---: |
| A－P－N | A－P | P－N |
| P－N－D | N－D |  |

Table 20．1．1．Combination of clusters from HT 14 （a）

## 3．20．2 Hittite

| A－PU－NA－DU |  |  |
| :---: | :---: | :---: |
| A－PU－NA | A－PU | PU－NA |
| PU－NA－DU | NA－DU |  |

Table 20．2．1．Combination of clusters from HT 14 （a）

## 3．21 Artefact HT 15

Transcription of Linear A characters on artefact HT 15 yielded a string under one distinct row of cluster：
a．｜KI－RO


Image 21．Standardised inscription of HT 15，obtained from GORILA 1

## K－R

Table 21．1．1．Combination of clusters from HT 15 （a）

## KI－RO

Table 21．2．1．Combination of clusters from HT 15 （a）

## 3．22 Artefact HT 16

Transcription of Linear A characters on artefact HT 16 yielded strings under four distinct rows of clusters：
a．KA－KU－PA｜DI
b．NA－U｜WA
c． SA－PO｜
HTT 16

$$
\begin{aligned}
& \text { 2 「们7. [|m| } \\
& 3 \text { 十明 } 17 \\
& 4 \text { YP. }
\end{aligned}
$$

Image 22．Standardised inscription of HT 16，obtained from GORILA 1

## 3．22．1 Common Semitic／Middle Egyptian

| K－K－P |  |
| :---: | :---: |
| K－K | K－P |

Table 22．1．1．Combination of clusters from HT 16 （a）

|  | D－N |
| :---: | :---: |
| D－N | N－U |

Table 22．1．2．Combination of clusters from HT 16 （a）－（b）

| W－S－P |  |
| :---: | :---: |
| W－S | S－P |

Table 22．1．3．Combination of clusters from HT 16 （b）－（c）

## 3．22．2 Hittite

| KA－KU－PA |  |
| :---: | :---: |
| KA－KU | KU－PA |

Table 22．2．1．Combination of clusters from HT 16 （a）

## DI－NA－U

| DI-NA | NA-U |
| :---: | :---: |

Table 22.2.2. Combination of clusters from HT 16 (a)-(b)

| WA-SA-PO |  |
| :---: | :---: |
| WA-SA | SA-PO |

Table 22.2.3. Combination of clusters from HT 16 (b)-(c)

### 3.23 Artefact HT 17

Transcription of Linear A characters on artefact HT 17 yielded strings under two distinct rows of clusters:
a. $\mid$ SA-RO $\mid$
b. SI-DA-RE

HT 12
$12 \boxtimes \cap \cdot$ 丰•布
$2=-i!i!(Y t)-$
$3(4)+4)!:!$
4 vacat

Image 23. Standardised inscription of HT 17, obtained from GORILA 1
3.23.1 Common Semitic / Middle Egyptian

## S-R

Table 23.1.1. Combination of clusters from HT 17 (a)

| S-D-R |  |
| :---: | :---: |
| S-D | D-R |

Table 23.1.2. Combination of clusters from HT 17 (b)

### 3.23.2 Hittite

SA-RO

Table 23.2.1. Combination of clusters from HT 17 (a)

| SI-DA-RE |  |
| :---: | :---: |
| SI-DA | DA-RE |

Table 23.2.2. Combination of clusters from HT 17 (b)

### 3.24 Artefact HT 18

Transcription of Linear A characters on artefact HT 18 yielded strings under two distinct rows of clusters:
a．PA－SE＊578
b． $\mid$ SA－RA $\mid$
HTY 18

$$
\begin{aligned}
& \text {. } 1\left(\neq \mid \mu \bar{\Phi}_{\odot}\right)=\text { 夷: } \\
& \left.2 P_{1}^{\prime}(Y \geqslant)\right] \Phi-\#_{1}^{*} \\
& .3 \\
& \text {.4-5 vacant }
\end{aligned}
$$

Image 24．Standardised inscription of HT 18，obtained from GORILA 1

3．24．1 Common Semitic／Middle Egyptian

## P－S

Table 24．1．1．Combination of clusters from HT 18 （a）

## S－R

Table 24．1．2．Combination of clusters from HT 18 （b）

## 3．24．2 Hittite

## PA－SE

Table 24．2．1．Combination of clusters from HT 18 （a）

## SA－RA

Table 24．2．2．Combination of clusters from HT 18 （b）

## 3．25 Artefact HT 19

Transcription of Linear A characters on artefact HT 19 yielded strings under two distinct rows of clusters：
a．｜SA－RO
b．｜DU－ME－DI


$$
\begin{aligned}
& 12 \text { 回 } \cap \text { 非。 } \\
& 2 \text { 布 }=-(Y \neq)
\end{aligned}
$$

$$
\begin{aligned}
& .4=テ \begin{array}{l}
11 \\
1<
\end{array}
\end{aligned}
$$

Image 25．Standardised inscription of HT 19，obtained from GORILA 1

## S-R

Table 25.1.1. Combination of clusters from HT 19 (a)

|  | D-M-D |
| :---: | :---: |
| D-M | M-D |

Table 25.1.2. Combination of clusters from HT 19 (b)
3.25.2 Hittite

## SA-RO

Table 25.2.1. Combination of clusters from HT 19 (a)

| DU-ME-DI |  |
| :---: | :---: |
| DU-ME | ME-DI |

Table 25.2.2. Combination of clusters from HT 19 (b)

### 3.26 Artefact HT 20

Transcription of Linear A characters on artefact HT 20 yielded strings under four distinct rows of clusters:
a. PA-RO-SU $\mid \mathrm{KU}$
b. MA-JU|QE-KU
c. $\mathrm{RE} \mid$
d. SA-RE-JU |


Image 26. Standardised inscription of HT 20, obtained from GORILA 1

### 3.26.1 Common Semitic / Middle Egyptian

| P-R-S |  |
| :---: | :---: |
| P-R | R-S |

Table 26.1.1. Combination of clusters from HT 20 (a)

| K-M | M-J |
| :---: | :---: |

Table 26.1.2. Combination of clusters from HT 20 (a)-(b)

|  | Q-K-R |
| :---: | :---: |
| Q-K | K-R |

Table 26.1.3. Combination of clusters from HT 20 (b)-(c)

| S-R-J |  |
| :---: | :---: |
| S-R | R-J |

Table 26.1.4. Combination of clusters from HT 20 (d)

### 3.26.2 Hittite

| PA-RO-SU |  |
| :---: | :---: |
| PA-RO | RO-SU |

Table 26.2.1. Combination of clusters from HT 20 (a)

| KU-MA-JU |  |
| :---: | :---: |
| KU-MA | MA-JU |

Table 26.2.2. Combination of clusters from HT 20 (a)-(b)

| QE-KU-RE |  |
| :---: | :---: |
| QE-KU | KU-RE |

Table 26.2.3. Combination of clusters from HT 20 (b)-(c)

| SA-RE-JU |  |
| :---: | :---: |
| SA-RE | RE-JU |

Table 26.2.4. Combination of clusters from HT 20 (d)

### 3.27 Artefact HT 21

Transcription of Linear A characters on artefact HT 21 yielded strings under one distinct row of cluster:
a. PI-TA-KA-SE |


Image 27. Standardised inscription of HT 21, obtained from GORILA 1
3.27.1 Common Semitic / Middle Egyptian

| P-T-K-S |  |  |
| :---: | :---: | :---: |
| P-T-K | P-T | T-K |
| T-K-S | K-S |  |

Table 27.1.1. Combination of clusters from HT 21 (a)
3.27.2 Hittite

| PI-TA-KA-SE |  |  |
| :---: | :---: | :---: |
| PI-TA-KA | PI-TA | TA-KA |
| TA-KA-SE | KA-SE |  |

Table 27.2.1. Combination of clusters from HT 21 (a)

### 3.28 Artefact HT 23a

Transcription of Linear A characters on artefact HT 23a yielded strings under three distinct rows of clusters:
a. KA-NA
b. QI-RI-TU-QA |SA-SA
c. $\mathrm{ME} \mid \mathrm{KO}-\mathrm{RU}$


Image 28. Standardised inscription of HT 23a, obtained from GORILA 1
3.28.1 Common Semitic / Middle Egyptian

## K-N

Table 28.1.1. Combination of clusters from HT 23a (a)

| Q-R-T-Q |  |  |
| :---: | :---: | :---: |
| Q-R-T | Q-R | R-T |
| R-T-Q | T-Q |  |

Table 28.1.2. Combination of clusters from HT 23a (b)

## S-S-M

| S-S | S-M |
| :---: | :---: |

Table 28.1.3. Combination of clusters from HT 23a (b)-(c)
K-R

Table 28.1.4. Combination of clusters from HT 23a (c)

### 3.28.2 Hittite

## KA-NA

Table 28.2.1. Combination of clusters from HT 23a (a)

|  | QI-RI-TU-QA |  |
| :---: | :---: | :---: |
| QI-RI-TU | QI-RI | RI-TU |
| RI-TU-QA | TU-QA |  |

Table 28.2.2. Combination of clusters from HT 23a (b)

| SA-SA-ME |  |
| :---: | :---: |
| SA-SA | SA-ME |

Table 28.2.3. Combination of clusters from HT 23a (b)-(c)

## KO-RU

Table 28.2.4. Combination of clusters from HT 23a (c)

### 3.29 Artefact HT 23b

Transcription of Linear A characters on artefact HT 23b yielded strings under one distinct row of cluster:
a. NI-RA


Image 29. Standardised inscription of HT 23b, obtained from GORILA 1

### 3.29.1 Common Semitic / Middle Egyptian

## N-R

Table 29.1.1. Combination of clusters from HT 23b (a)

### 3.29.2 Hittite

NI-RA

Table 29.2.1. Combination of clusters from HT 23b (a)

### 3.30 Artefact HT 24a

Transcription of Linear A characters on artefact HT 24a yielded strings under three distinct rows of clusters:
a. KU-PA-RI-JA | KI *546 |
b. PA-SA-RI-JA | $* 560 \mathrm{ME} \mid$
c. RU-I-KO

```
HT 94a
```



```
2:!:% M.N+-[
```




```
    s [T W # O]. 岁[
```

Image 30. Standardised inscription of HT 24a, obtained from GORILA 1
3.30.1 Common Semitic / Middle Egyptian

| K-P-R-J |  |  |
| :---: | :---: | :---: |
| K-P-R | K-P | P-R |
| P-R-J | R-J |  |

Table 30.1.1. Combination of clusters from HT 24a (a)

| P-S-R-J |  |  |
| :---: | :---: | :---: |
| P-S-R | P-S | S-R |
| S-R-J | R-J |  |

Table 30.1.2. Combination of clusters from HT 24a (b)

|  | R-I-K |
| :---: | :---: |
| R-I | I-K |

Table 30.1.3. Combination of clusters from HT 24a (c)

### 3.30.2 Hittite

| KU-PA-RI-JA |  |  |
| :---: | :---: | :---: |
| KU-PA-RI | KU-PA | PA-RI |
| PA-RI-JA | RI-JA |  |

Table 30.2.1. Combination of clusters from HT 24a (a)

| PA-SA-RI-JA |  |  |
| :---: | :---: | :---: |
| PA-SA-RI | PA-SA | SA-RI |
| SA-RI-JA | RI-JA |  |

Table 30.2.2. Combination of clusters from HT 24a (b)

| RU-I-KO |  |
| :---: | :---: |
| RU-I | I-KO |

Table 30.2.3. Combination of clusters from HT 24a (c)

### 3.31 Artefact HT 25a

Transcription of Linear A characters on artefact HT 25a yielded strings under five distinct rows of clusters:
a. DI-NA-U |
b. RU-NI|U-RE-WI |DI-NA-U
c. $\mid$ A-RI-NI-TA |TU-QE-NU |
d. ZU-JU-PU|DU-RU-WI|
e. I-KI-RA |

Image 31. Standardised inscription of HT 25a, obtained from GORILA 1

### 3.31.1 Common Semitic / Middle Egyptian

|  | D-N-U |
| :---: | :---: |
| D-N | N-U |

Table 31.1.1. Combination of clusters from HT 25a (a)

| R-N |  |  |
| :---: | :---: | :---: |
|  | U-R-W |  |
| U-R |  | R-W |
|  | D-N-U |  |
| D-N |  | N-U |

Table 31.1.2. Combination of clusters from HT 25a (b)

| A-R-N-T |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A-R-N | A-R | R-N |  |  |  |
| R-N-T | N-T |  |  |  |  |
| T-Q |  |  |  | T-Q-N | Q-N |

Table 31.1.3. Combination of clusters from HT 25a (c)

| Z-J-P |  |  |
| :---: | :---: | :---: |
| Z-J | J-P |  |
| D-R |  |  |
| D-W | R-W |  |

Table 31.1.4. Combination of clusters from HT 25a (d)

| I-K-R |  |
| :---: | :---: |
| I-K | K-R |

Table 31.1.5. Combination of clusters from HT 25a (e)

### 3.31.2 Hittite

| DI-NA-U |  |
| :---: | :---: |
| DI-NA | NA-U |

Table 31.2.1. Combination of clusters from HT 25a (a)

| RU-NI |  |  |
| :---: | :---: | :---: |
| U-RE-WI |  |  |
| U-RE |  | RE-WI |
| DI-NA |  |  |
| DI-NA-U | NA-U |  |

Table 31.2.2. Combination of clusters from HT 25a (b)

| A-RI-NI-TA |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A-RI-NI | A-RI | RI-NI |  |  |  |
| RI-NI-TA | NI-TA |  |  |  |  |
| TU-QE |  |  |  | TU-QE-NU | QE-NU |

Table 31.2.3. Combination of clusters from HT 25a (c)

| ZU-JU-PU |  |  |
| :---: | :---: | :---: | :---: |
| ZU-JU |  | JU-PU |
|  | DU-RU-WI |  |
| DU-RU |  | RU-WI |

Table 31.2.4. Combination of clusters from HT 25a (d)

| I-KI-RA |  |
| :---: | :---: |
| I-KI | KI-RA |

Table 31.2.5. Combination of clusters from HT 25a (e)

### 3.32 Artefact HT 25b

Transcription of Linear A characters on artefact HT 25b yielded strings under three distinct rows of clusters:
a. KU-RO|WI-TE-RO |I
b. $\mathrm{TI} \mid$
c. KU-RO

Image 32. Standardised inscription of HT 25 b, obtained from GORILA 1
3.32.1 Common Semitic / Middle Egyptian

| K-R |  |  |
| :---: | :---: | :---: |
| W-T-R |  |  |
| W-T | T-R |  |

Table 32.1.1. Combination of clusters from HT 25b (a)

## I-T

Table 32.1.2. Combination of clusters from HT 25 b (a)-(b)

## K-R

Table 32.1.3. Combination of clusters from HT 25b ©
3.32.2 Hittite

| KU-RO |  |  |
| :---: | :---: | :---: |
| WI-TE-RO |  |  |
| WI-TE |  |  |

Table 32.2.1. Combination of clusters from HT 25b (a)

## I-TI

Table 32.2.2. Combination of clusters from HT 25 b (a)-(b)

## KU-RO

Table 32.2.3. Combination of clusters from HT 25b (c)

## 3．33 Artefact HT 26a

Transcription of Linear A characters on artefact HT 26a yielded strings under three distinct rows of clusters：
a．＊312 TE－TE
b．TA－TI｜MI－KI
c． SE－NA｜
ITT $\mathbf{9 6 a}$
1 鲜（1丰韦）


4 व्रह 페［
Image 33．Standardised inscription of HT 26a，obtained from GORILA 1

3．33．1 Common Semitic／Middle Egyptian

| T－T－T－T |  |
| :---: | :---: |
| T－T－T | T－T |

Table 33．1．1．Combination of clusters from HT 26a（a）－（b）

| M－K－S－N |  |  |
| :---: | :---: | :---: |
| M－K－S | M－K | K－S |
| K－S－N | S－N |  |

Table 33．1．2．Combination of clusters from HT 26a（b）－（c）

## 3．33．2 Hittite

| TE－TE－TA－TI |  |  |
| :---: | :---: | :---: |
| TE－TE－TA | TE－TE | TE－TA |
| TE－TA－TI | TA－TI |  |

Table 33．2．1．Combination of clusters from HT 26a（a）－（b）

| MI－KI－SE－NA |  |  |
| :---: | :---: | :---: |
| MI－KI－SE | MI－KI | KI－SE |
| KI－SE－NA | SE－NA |  |

Table 33．2．2．Combination of clusters from HT 26a（b）－（c）

## 3．34 Artefact HT 26b

Transcription of Linear A characters on artefact HT 26b yielded strings under three distinct rows of clusters：
a. PA-RO-NI $\mid \mathrm{KA}-\mathrm{U}$
b. $\mathrm{ZU}-\mathrm{NI} \mid$
c. $\mathrm{I} * 308$

HT 96b


Image 34. Standardised inscription of HT 26b, obtained from GORILA 1
3.34.1 Common Semitic / Middle Egyptian

| P-R-N |  |
| :---: | :---: |
| P-R | R-N |

Table 34.1.1. Combination of clusters from HT 26b (a)

| K-U-Z-N |  |  |
| :---: | :---: | :---: |
| K-U-Z | K-U | U-Z |
| U-Z-N | Z-N |  |

Table 34.1.2. Combination of clusters from HT 26b (a)-(b)

### 3.34.2 Hittite

| PA-RO-NI |  |
| :---: | :---: |
| PA-RO | RO-NI |

Table 34.2.1. Combination of clusters from HT 26b (a)

| KA-U-ZU-NI |  |  |
| :---: | :---: | :---: |
| KA-U-ZU | KA-U | U-ZU |
| U-ZU-NI | ZU-NI |  |

Table 34.2.2. Combination of clusters from HT 26b (a)-(b)

### 3.35 Artefact HT 27a

Transcription of Linear A characters on artefact HT 27a yielded strings under five distinct rows of clusters:
a. TI-NI-TA
b. I-MI-SA-RA |
c. $|\mathrm{KI}-\mathrm{DA}| \mathrm{KI}$
d. $* 310|\mathrm{KU} * 305|$ SA-RA-DI |
e. KU-RO

## IIT 9Za



Image 35. Standardised inscription of HT 27a, obtained from GORILA 1

### 3.35.1 Common Semitic / Middle Egyptian

| T-N-T |  |
| :---: | :---: |
| T-N | N-T |

Table 35.1.1. Combination of clusters from HT 27a (a)

| I-M-S-R |  |  |
| :---: | :---: | :---: |
| I-M-S | I-M | M-S |
| M-S-R | S-R |  |

Table 35.1.2. Combination of clusters from HT 27a (b)
K-D

Table 35.1.3. Combination of clusters from HT 27a (c)

| S-R-D |  |
| :---: | :---: |
| S-R | R-D |

Table 35.1.4. Combination of clusters from HT 27a (d)

## K-R

Table 35.1.5. Combination of clusters from HT 27a (e)
3.35.2 Hittite

| TI-NI-TA |  |
| :---: | :---: |
| TI-NI | NI-TA |

Table 35.2.1. Combination of clusters from HT 27a (a)

| I-MI-SA-RA |  |  |
| :---: | :---: | :---: |
| I-MI-SA | I-MI | MI-SA |
| MI-SA-RA | SA-RA |  |

Table 35.2.2. Combination of clusters from HT 27a (b)

## KI-DA

Table 35.2.3. Combination of clusters from HT 27a (c)

| SA-RA-DI |  |
| :---: | :---: |
| SA-RA | RA-DI |

Table 35.2.4. Combination of clusters from HT 27a (d)

## KU-RO

Table 35.2.5. Combination of clusters from HT 27a (e)

### 3.36 Artefact HT 27b

Transcription of Linear A characters on artefact HT 27b yielded strings under two distinct rows of clusters:
a. MI-DA |
b. PA-SE


Image 36. Standardised inscription of HT 27b, obtained from GORILA 1
3.36.1 Common Semitic / Middle Egyptian

M-D
Table 36.1.1. Combination of clusters from HT 27b (a)

## P-S

Table 36.1.2. Combination of clusters from HT 27b (b)

Table 36.2.1. Combination of clusters from HT 27b (a)

## PA－SE

Table 36．2．2．Combination of clusters from HT 27b（b）

## 3．37 Artefact HT 28a

Transcription of Linear A characters on artefact HT 28a yielded strings under four distinct rows of clusters：
a．A－SI－JA－KA $|\mathrm{JA}-\mathrm{QI}|$
b．SA－RA＊608｜
c．A－RU－DA－RA｜
d．I－TA－JA＊608
ITT \＆：a

$2{ }_{11}^{I I}$ 平：米く シ，娄
． $3 \quad \Delta=(Y \geqslant) \quad \exists 7) \quad * *$ ！
4．雨！＂亩雨＂：＂


Image 37．Standardised inscription of HT 28a，obtained from GORILA 1

3．37．1 Common Semitic／Middle Egyptian

| A－S－J－K |  |  |  |
| :---: | :---: | :---: | :---: |
| A－S－J | A－S | S－J |  |
| S－J－K | J－K |  |  |
| J－Q |  |  |  |

Table 37．1．1．Combination of clusters from HT 28a（a）

## S－R

Table 37．1．2．Combination of clusters from HT 28a（b）

| A－R－D－R |  |  |
| :---: | :---: | :---: |
| A－R－D | A－R | R－D |
| R－D－R | D－R |  |

Table 37．1．3．Combination of clusters from HT 28a（c）

| I－T－J |  |
| :---: | :---: |
| I－T | T－J |

Table 37．1．4．Combination of clusters from HT 28a（d）

| A-SI-JA-KA |  |  |
| :---: | :---: | :---: |
| A-SI-JA | A-SI | SI-JA |
| SI-JA-KA | JA-KA |  |
| JA-QI |  |  |

Table 37.2.1. Combination of clusters from HT 28a (a)

## SA-RA

Table 37.2.2. Combination of clusters from HT 28a (b)

| A-RU-DA-RA |  |  |
| :---: | :---: | :---: |
| A-RU-DA | A-RU | RU-DA |
| RU-DA-RA | DA-RA |  |

Table 37.2.3. Combination of clusters from HT 28a (c)

| I-TA-JA |  |
| :---: | :---: |
| I-TA | TA-JA |

Table 37.2.4. Combination of clusters from HT 28a (d)

### 3.38 Artefact HT 28b

Transcription of Linear A characters on artefact HT 28b yielded strings under five distinct rows of clusters:
a. A-SI-JA-KA | U-MI
b. NA-SI|SA-RA |
c. PU-RA
d. $|J A-Q I|$
e. WI-DI-NA *608

HT 98b


Image 38. Standardised inscription of HT 28b, obtained from GORILA 1

### 3.38.1 Common Semitic / Middle Egyptian

| A-S-J-K |  |  |
| :---: | :---: | :---: |
| A-S-J | A-S | S-J |
| S-J-K | J-K |  |

Table 38.1.1. Combination of clusters from HT 28b (a)

| U-M-N-S |  |  |
| :---: | :---: | :---: |
| U-M-N | U-M | M-N |
| M-N-S | N-S |  |

Table 38.1.2. Combination of clusters from HT 28b (a)-(b)

## S-R

Table 38.1.3. Combination of clusters from HT 28b (b)

## P-R

Table 38.1.4. Combination of clusters from HT 28b ©

## J-Q

Table 38.1.5. Combination of clusters from HT 28b (d)

| W-D-N |  |
| :---: | :---: | :---: |
| W-D | D-N |

Table 38.1.6. Combination of clusters from HT 28b (e)

### 3.38.2 Hittite

| A-SI-JA-KA |  |  |
| :---: | :---: | :---: |
| A-SI-JA | A-SI | SI-JA |
| SI-JA-KA | JA-KA |  |

Table 38.2.1. Combination of clusters from HT 28b (a)

| U-MI-NA-SI |  |  |
| :---: | :---: | :---: |
| U-MI-NA | U-MI | MI-NA |
| MI-NA-SI | NA-SI |  |

Table 38.2.2. Combination of clusters from HT 28b (a)-(b)

## SA-RA

Table 38.2.3. Combination of clusters from HT 28b (b)

## PU-RA

Table 38.2.4. Combination of clusters from HT 28b (c)

## JA-QI

Table 38.2.5. Combination of clusters from HT 28b (d)

| WI－DI－NA |  |
| :---: | :---: |
| WI－DI DI－NA |  |

Table 38．2．6．Combination of clusters from HT 28b（e）

## 3．39 Artefact HT 29

Transcription of Linear A characters on artefact HT 29 yielded strings under six distinct rows of clusters：
a．RU－MA－TA
b．｜PA－JA－RE
c．DI－JA－I $\mid$
d．SA＊323 MI｜KI－TA
e．｜A－RE－DA－I｜
f．KA－DU－MA－NE


3 （采目出）：


6（ （ 7 片的 而 $)$
Image 39．Standardised inscription of HT 29，obtained from GORILA 1

## 3．39．1 Common Semitic／Middle Egyptian

| R－M－T |  |
| :---: | :---: |
| R－M | M－T |

Table 39．1．1．Combination of clusters from HT 29 （a）

| P－J－R |  |
| :---: | :---: |
| P－J J－R |  |

Table 39．1．2．Combination of clusters from HT 29 （b）

|  | D－J－I |
| :---: | :---: |
| D－J | J－I |

Table 39．1．3．Combination of clusters from HT 29 （c）

## K-T

Table 39.1.4. Combination of clusters from HT 29 (d)

| A-R-D-I |  |  |
| :---: | :---: | :---: |
| A-R-D | A-R | R-D |
| R-D-I | D-I |  |

Table 39.1.5. Combination of clusters from HT 29 (e)

| K-D-M-N |  |  |
| :---: | :---: | :---: |
| K-D-M | K-D | D-M |
| D-M-N | M-N |  |

Table 39.1.6. Combination of clusters from HT 29 (f)

### 3.39.2 Hittite

| RU-MA-TA |  |
| :---: | :---: |
| RU-MA | MA-TA |

Table 39.2.1. Combination of clusters from HT 29 (a)

| PA-JA-RE |  |
| :---: | :---: |
| PA-JA JA-RE |  |

Table 39.2.2. Combination of clusters from HT 29 (b)

| DI-JA-I |  |
| :---: | :---: |
| DI-JA | JA-I |

Table 39.2.3. Combination of clusters from HT 29 (c)

## KI-TA

Table 39.2.4. Combination of clusters from HT 29 (d)

| A-RE-DA-I |  |  |
| :---: | :---: | :---: |
| A-RE-DA | A-RE | RE-DA |
| RE-DA-I | DA-I |  |

Table 39.2.5. Combination of clusters from HT 29 (e)

| KA-DU-MA-NE |  |  |
| :---: | :---: | :---: |
| KA-DU-MA | KA-DU | DU-MA |
| DU-MA-NE | MA-NE |  |

Table 39.2.6. Combination of clusters from HT 29 (f)

### 3.40 Artefact HT 30

Transcription of Linear A characters on artefact HT 30 yielded strings under three distinct rows of clusters:
a. |SA-RA *303|
b. $\mid$ SA-RA-RA $\mid$
c. $\mid \mathrm{KI}-\mathrm{RO}$

ITT 50


Image 40. Standardised inscription of HT 30, obtained from GORILA 1
3.40.1 Common Semitic / Middle Egyptian

## S-R

Table 40.1.1. Combination of clusters from HT 30 (a)

| S-R-R |  |
| :---: | :---: |
| S-R | R-R |

Table 40.1.2. Combination of clusters from HT 30 (b)

## K-R

Table 40.1.3. Combination of clusters from HT 30 (c)
3.40.2 Hittite

## SA-RA

Table 40.2.1. Combination of clusters from HT 30 (a)

| SA-RA-RA |  |
| :---: | :---: |
| SA-RA | RA-RA |

Table 40.2.2. Combination of clusters from HT 30 (b)

## KI-RO

Table 40.2.3. Combination of clusters from HT 30 (c)

### 3.41 Artefact HT 31

Transcription of Linear A characters on artefact HT 31 yielded strings under three distinct rows of clusters:
a. $\mid$ TI-SA $\mid$ PU-KO $\mid$
b. $\mid$ SA-JA-MA $\mid$
c. $\mid \mathrm{KI}-\mathrm{DE}-\mathrm{MA} * 323 \mathrm{NA}$

ITT 54


Image 41. Standardised inscription of HT 31, obtained from GORILA 1

### 3.41.1 Common Semitic / Middle Egyptian

## T-S

Table 41.1.1. Combination of clusters from HT 31 (a)

|  | S-J-M |
| :---: | :---: | :---: |
| S-J | J-M |

Table 41.1.2. Combination of clusters from HT 31 (b)

| K-D-M |  |  |
| :---: | :---: | :---: |
| K-D | D-M |  |

Table 41.1.3. Combination of clusters from HT 31 (c)
3.41.2 Hittite

| TI-SA |
| :---: |
| PU-KO |

Table 41.2.1. Combination of clusters from HT 31 (a)

| SA-JA-MA |  |
| :---: | :---: |
| SA-JA JA-MA |  |

Table 41.2.2. Combination of clusters from HT 31 (b)

| KI-DE-MA |  |  |
| :---: | :---: | :---: |
| KI-DE | DE-MA |  |

Table 41.2.3. Combination of clusters from HT 31 (c)

## 3．42 Artefact HT 32

Transcription of Linear A characters on artefact HT 32 yielded strings under two distinct rows of clusters：
a． $\mid$ SARA $\mid$
b．SU－RE｜
IT $\mathbf{5 9}$
1．$A$ ．（ 477 ）$A<$ 星早

$.3(\boxminus \Psi) \circ \begin{aligned} & \| 111 \\ & \| \pi\end{aligned}$
.4 主［］$] \begin{array}{llll}0 & 11 & \pi & \pi \\ 11 & 1 & : 3 & 11\end{array}$
5 vacate

Image 42．Standardised inscription of HT 32，obtained from GORILA 1

3．42．1 Common Semitic／Middle Egyptian

## SR

Table 42．1．1．Combination of clusters from HT 32 （a）\＆（b）

3．42．2 Hittite

## SARA

Table 42．2．1．Combination of clusters from HT 32 （a）

## SU－RE

Table 42．2．2．Combination of clusters from HT 32 （b）

## 3．43 Artefact HT 33

Transcription of Linear A characters on artefact HT 33 yielded strings under one distinct row of cluster：
a．SA－RA

HT T 5


Image 43. Standardised inscription of HT 33, obtained from GORILA 1
3.43.1 Common Semitic / Middle Egyptian

## S-R

Table 43.1.1. Combination of clusters from HT 33 (a)
3.43.2 Hittite

## SARA

Table 43.2.1. Combination of clusters from HT 33 (a)

### 3.44 Artefact HT 34

Transcription of Linear A characters on artefact HT 34 yielded strings under two distinct rows of clusters:
a. DA-JU-TE $\mid$ SARA $\mid$
b. $|\mathrm{KI}-\mathrm{RO}|$

HT 3.


Image 44. Standardised inscription of HT 34, obtained from GORILA 1

### 3.44.1 Common Semitic / Middle Egyptian

## D.J-T

| D－J | J－T |
| :---: | :---: |
| S－R |  |

Table 44．1．1．Combination of clusters from HT 34 （a）

## K－R

Table 44．1．1．Combination of clusters from HT 34 （b）

## 3．44．2 Hittite

| DA－JU－TE |  |  |
| :---: | :---: | :---: |
| DA－JU |  | JU－TE |
|  | SA－RA |  |

Table 44．2．1．Combination of clusters from HT 34 （a）

## KI－RO

Table 44．2．1．Combination of clusters from HT 34 （b）

## 3．45 Artefact HT 35

Transcription of Linear A characters on artefact HT 35 yielded strings under one distinct row of clusters：
a．TI－TI－KU $\mid \mathrm{I}-\mathrm{KU}-\mathrm{TA}$
IIT $\mathbf{3 5}$

$\therefore$ 后目 + 是 $+\theta+$

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.5 vacat
Image 45．Standardised inscription of HT 35，obtained from GORILA 1

3．45．1 Common Semitic／Middle Egyptian

| T－T－K |  |  |
| :---: | :---: | :---: |
| T－T |  | T－K |
| I－K－T |  |  |
| I－K |  | K－T |

Table 45．1．1．Combination of clusters from HT 35 （a）

3．45．2 Hittite

| TI－TI－KU |  |  |
| :---: | :---: | :---: |
| T－T | T－K |  |


| I-KU-TA |  |
| :---: | :---: |
| I-KU | KU-TA |

Table 45.2.1. Combination of clusters from HT 35 (a)

### 3.46 Artefact HT 36

Transcription of Linear A characters on artefact HT 36 yielded strings under two distinct rows of clusters:
a. JE-DI $* 638$
b. |DU-ZU-WA

HT T 56

.5

$$
\left[\begin{array}{l}
1!1 \\
11
\end{array}\right]
$$

Image 46. Standardised inscription of HT 36, obtained from GORILA 1

### 3.46.1 Common Semitic / Middle Egyptian

## J-D

Table 46.1.1. Combination of clusters from HT 36 (a)

| D-Z-W |  |
| :---: | :---: |
| D-Z | Z-W |

Table 46.1.2. Combination of clusters from HT 36 (b)
3.46.2 Hittite

## JE-DI

Table 46.2.1. Combination of clusters from HT 36 (a)

| DU-ZU-WA |  |  |
| :---: | :---: | :---: |
| DU-ZU | ZU-WA |  |

Table 46.2.2. Combination of clusters from HT 36 (b)

### 3.47 Artefact HT 37

Transcription of Linear A characters on artefact HT 37 yielded strings under four distinct rows of clusters:
a. $|\mathrm{KA}-\mathrm{KI}|$
b. RE-SU |
c. $|\mathrm{KI} * 310 \mathrm{RE}|$
d. KI-RO|KA-KI $|\mathrm{A}-\mathrm{NA}|$


Image 47. Standardised inscription of HT 37, obtained from GORILA 1
3.47.1 Common Semitic / Middle Egyptian

## K-K

Table 47.1.1. Combination of clusters from HT 37 (a)

## R-S

Table 47.1.2. Combination of clusters from HT 37 (b)

| K-R |
| ---: |
| K-K |
| $\mathbf{A - N}$ |

Table 47.1.3. Combination of clusters from HT 37 (d)
3.47.2 Hittite

## KA-KI

Table 47.2.1. Combination of clusters from HT 37 (a)

## RE-SU

Table 47.2.2. Combination of clusters from HT 37 (b)

| KI-RO |
| :---: |
| KA-KI |
| A-NA |

Table 47.2.3. Combination of clusters from HT 37 (d)

### 3.48 Artefact HT 38

Transcription of Linear A characters on artefact HT 38 yielded strings under one distinct row of cluster:
a. DA-RO-PA

HF 3:


Image 48. Standardised inscription of HT 38, obtained from GORILA 1
3.48.1 Common Semitic / Middle Egyptian

| D-R-P |  |
| :---: | :---: | :---: |
| D-R | R-P |

Table 48.1.1. Combination of clusters from HT 38 (a)
3.48.2 Hittite

|  | DA-RO-PA |
| :---: | :---: |
| DA-RO | RO-PA |

Table 48.2.1. Combination of clusters from HT 38 (a)

### 3.49 Artefact HT 39

Transcription of Linear A characters on artefact HT 39 yielded strings under four distinct rows of clusters:
a. TA-I *123|
b. KU-RE-JU |
c. SA-MA-TI |KU-RE $\mid$
d. KU-RO


Image 49. Standardised inscription of HT 39, obtained from GORILA 1
3.49.1 Common Semitic / Middle Egyptian

## T-I

Table 49.1.1. Combination of clusters from HT 39 (a)

| K-R-J |  |  |
| :---: | :---: | :---: |
| K-R | R-J |  |

Table 49.1.2. Combination of clusters from HT 39 (b)

| S-M-T |  |  |
| :---: | :---: | :---: |
| S-M | M-T |  |
|  | K-R |  |

Table 49.1.3. Combination of clusters from HT 39 (c)

## K-R

Table 49.1.4. Combination of clusters from HT 39 (d)

### 3.49.2 Hittite

$\square$ TA-I

Table 49.2.1. Combination of clusters from HT 39 (a)

| KU-RE-JU |  |
| :---: | :---: |
| KU-RE | RE-JU |

Table 49.2.2. Combination of clusters from HT 39 (b)

| SA-MA-TI |  |  |
| :---: | :---: | :---: |
| SA-MA |  | MA-TI |
| KU-RE |  |  |

Table 49.2.3. Combination of clusters from HT 39 (c)

## KU-RO

Table 49.2.4. Combination of clusters from HT 39 (d)

### 3.50 Artefact HT 40

Transcription of Linear A characters on artefact HT 34 yielded strings under three distinct rows of clusters:
a. NU-DU *331|
b. KI-DA-TA |
c. KU-RO

HFI 40)

$2(\%+C) \cdot \nabla_{t c}=-\cdots$
3 ( $3+5$
${ }_{4} 3[$
Image 50. Standardised inscription of HT 40, obtained from GORILA 1
3.50.1 Common Semitic / Middle Egyptian
N-D

Table 50.1.1. Combination of clusters from HT 40 (a)

| K-D-T |  |
| :---: | :---: |
| K-D | D-T |

Table 50.1.2. Combination of clusters from HT 40 (b)

## K-R

Table 50.1.3. Combination of clusters from HT 40 (c)

### 3.50.2 Hittite

## NU-DU

Table 50.2.1. Combination of clusters from HT 40 (a)

| KI-DA-TA |  |
| :---: | :---: |
| KI-DA | DA-TA |

Table 50.2.2. Combination of clusters from HT 40 (b)

## KU-RO

Table 50.2.3. Combination of clusters from HT 40 (c)

### 3.51 Artefact HT 41a

Transcription of Linear A characters on artefact HT 34 yielded strings under two distinct rows of clusters:
a. QE-TU |
b. MI-DA-NI|PA-JA

## HT T shat



Image 51. Standardised inscription of HT 41a, obtained from GORILA 1
3.51.1 Common Semitic / Middle Egyptian

## Q-T

Table 51.1.1. Combination of clusters from HT 41a (a)

| M-D-N |  |  |
| :---: | :---: | :---: |
| M-D | D-N |  |
| P-J |  |  |

Table 51.1.2. Combination of clusters from HT 41a (b)

### 3.51.2 Hittite

## QE-TU

Table 51.2.1. Combination of clusters from HT 41a (a)

| MI-DA-NI |  |  |
| :---: | :---: | :---: |
| MI-DA | DA-NI |  |
| PA-JA |  |  |

Table 51.2.2. Combination of clusters from HT 41a (b)

### 3.52 Artefact HT 42 [+] 59

Transcription of Linear A characters on artefact HT 42 [+] 59 yielded strings under three distinct rows of clusters:
a. |SA-RO *618|
b. |SU-DU
c. $\mid$ RE-TU *618


Image 52. Standardised inscription of HT 42 [+] 59, obtained from GORILA 1
3.52.1 Common Semitic / Middle Egyptian
$\square$ S-R

Table 52.1.1. Combination of clusters from HT 42 [+] 59 (a)

## S-D

Table 52.1.2. Combination of clusters from HT 42 [+] 59 (b)

## R-T

Table 52.1.3. Combination of clusters from HT 42 [+] 59 (c)
3.52.2 Hittite

## SA-RO

Table 52.2.1. Combination of clusters from HT 42 [+] 59 (a)

## SU-DU

Table 52.2.2. Combination of clusters from HT 42 [+] 59 (b)

## RE-TU

Table 52.2.3. Combination of clusters from HT 42 [+] 59 (c)

### 3.53 Artefact HT 43

Transcription of Linear A characters on artefact HT 43 yielded strings under two distinct rows of clusters:
a. MA-SI-DU |PA
b. *342-I | I *574


Image 53. Standardised inscription of HT 43, obtained from GORILA 1
3.53.1 Common Semitic / Middle Egyptian

| M-S-D |  |  |
| :---: | :---: | :---: |
| M-S | S-D |  |

Table 53.1.1. Combination of clusters from HT 43 (a)
3.53.2 Hittite

| MA-SI-DU |  |  |
| :---: | :---: | :---: |
| MA-SI | SI-DU |  |

Table 53.2.1. Combination of clusters from HT 43 (a)

### 3.54 Artefact HT 44a

Transcription of Linear A characters on artefact HT 44a yielded strings under one distinct row of cluster:
a. I-QA *118

HT 4.4


Image 54. Standardised inscription of HT 44, obtained from GORILA 1

### 3.54.1 Common Semitic / Middle Egyptian

## I-Q

Table 54.1.1. Combination of clusters from HT 44 (a)

## I-QA

Table 54.2.1. Combination of clusters from HT 44 (a)

### 3.55 Artefact HT 46a

Transcription of Linear A characters on artefact HT 46a yielded strings under two distinct rows of clusters:
a. MU-RU |
b. KU-RO

HT 46 Et


Image 55. Standardised inscription of HT 46a, obtained from GORILA 1
3.55.1 Common Semitic / Middle Egyptian

M-R
Table 55.1.1. Combination of clusters from HT 46a (a)

## K-R

Table 55.1.2. Combination of clusters from HT 46a (b)
3.55.2 Hittite

MU-RU
Table 55.2.1. Combination of clusters from HT 46a (a)

Table 55.2.2. Combination of clusters from HT 46a (b)

### 3.56 Artefact HT 47a

Transcription of Linear A characters on artefact HT 47a yielded strings under four distinct rows of clusters:
a. |KU-PA
b. NA-TU
c. $\mid$ KI-DA-RO $\mid$
d. $\mid \mathrm{MI}-\mathrm{NU}-\mathrm{MI}$


Image 56. Standardised inscription of HT 47a, obtained from GORILA 1

### 3.56.1 Common Semitic / Middle Egyptian

| K-P |  |  |
| :---: | :---: | :---: |
| K-P-N | K-P | P-N |
| P-N-T | N-T |  |

Table 56.1.1. Combination of clusters from HT 47a (a)-(b)

| K-D-R |  |  |
| :---: | :---: | :---: |
| K-D | D-R |  |

Table 56.1.2. Combination of clusters from HT 47a (c)

|  | M-N |
| :---: | :---: |
| M-N | N-M |

Table 56.1.3. Combination of clusters from HT 47a (d)

### 3.56.2 Hittite

| KU-PA-NA-TU |  |  |  |
| :---: | :---: | :---: | :---: |
| KU-PA-NA | KU-PA | PA-NA |  |
| PA-NA-TU | NA-TU |  |  |

Table 56.2.1. Combination of clusters from HT 47a (a)-(b)

| KI-DA-RO |  |
| :---: | :---: |
| KI-DA | DA-RO |

Table 56.2.2. Combination of clusters from HT 47a ©

|  | MI-NU-MI |
| :---: | :---: |
| MI-NU | NU-MI |

Table 56.2.3. Combination of clusters from HT 47a (d)

### 3.57 Artefact HT 47b

Transcription of Linear A characters on artefact HT 47b yielded strings under one distinct row of cluster:
a. $\mid$ RA-NA-RE $\mid$

## HT $4 \overline{4} \mathrm{H}$

1


2-6
desunt
Image 57. Standardised inscription of HT 47b, obtained from GORILA 1
3.57.1 Common Semitic / Middle Egyptian

| R-N-R |  |
| :---: | :---: |
| R-N | N-R |

Table 57.1.1. Combination of clusters from HT 47b (a)
3.57.2 Hittite

| RA-NA-RE |  |
| :---: | :---: |
| RA-NA NA-RE |  |

Table 57.2.1. Combination of clusters from HT 47b (a)

### 3.58 Artefact HT 49a

Transcription of Linear A characters on artefact HT 49a yielded strings under seven distinct rows of clusters:
a. |RA-DU $\mid$
b. TA-NA-TI|
c. |SU-KI
d. $\mid$ TI-DU-NI $\mid$
e. |SI-RA|
f. A-RU|KU
g. PA-NU|TU-SU-PU|

## HT 49n



Image 58. Standardised inscription of HT 49a, obtained from GORILA 1

### 3.58.1 Common Semitic / Middle Egyptian

## R-D

Table 58.1.1. Combination of clusters from HT 49a (a)

| T-N-T |  |
| :---: | :---: |
| T-N | $\mathrm{N}-\mathrm{T}$ |

Table 58.1.2. Combination of clusters from HT 49a (b)
$\square$

## S-K

Table 58.1.3. Combination of clusters from HT 49a (c)

| T-D-N |  |
| :---: | :---: | :---: |
| T-D | D-N |

Table 58.1.4. Combination of clusters from HT 49a (d)

## S-R

Table 58.1.5. Combination of clusters from HT 49a (e)

## A-R

Table 58.1.6. Combination of clusters from HT 49a (f)

| K-P-N |  |
| :---: | :---: |
| K-P | P-N |

Table 58.1.7. Combination of clusters from HT 49a (f)-(g)

|  | T-S-P |
| :---: | :---: |
| T-S | S-P |

Table 58.1.8. Combination of clusters from HT 49a (g)

## RA-DU

Table 58.2.1. Combination of clusters from HT 49a (a)

| TA-NA-TI |  |
| :--- | :--- |
| TA-NA | NA-TI |
| Table 58.2.2. Combination of clusters from HT 49a (b) |  |

## SU-KI

Table 58.2.3. Combination of clusters from HT 49a (c)

|  | TI-DU-NI |
| :---: | :---: |
| TI-DU | DU-NI |

Table 58.2.4. Combination of clusters from HT 49a (d)

## SI-RA

Table 58.2.5. Combination of clusters from HT 49a (e)

## A-RU

Table 58.2.6. Combination of clusters from HT 49a (f)

| KU-PA-NU |  |
| :---: | :---: |
| KU-PA | PA-NU |

Table 58.2.7. Combination of clusters from HT 49a (f)-(g)

| TU-SU-PU |  |  |  |
| :---: | :---: | :---: | :---: |
| TU-SU | SU-PU |  |  |

Table 58.2.8. Combination of clusters from HT 49a (g)

### 3.59 Artefact HT 49b

Transcription of Linear A characters on artefact HT 49b yielded a string under one distinct row of cluster:
a. I-KI|

HIT' $\mathbf{4} \boldsymbol{4})$


Image 59. Standardised inscription of HT 49b, obtained from GORILA 1
3.59.1 Common Semitic / Middle Egyptian

## I-K

Table 59.1.1. Combination of clusters from HT 49b (a)
3.59.2 Hittite

## I-KI

Table 59.2.1. Combination of clusters from HT 49b (a)

### 3.60 Artefact HT 51a

Transcription of Linear A characters on artefact HT 51a yielded a string under one distinct row of cluster:
a. $\mid$ TI-NI $\mid$

HT SHa
.


3

Image 60. Standardised inscription of HT 51a, obtained from GORILA 1
3.60.1 Common Semitic / Middle Egyptian
T-N

Table 60.1.1. Combination of clusters from HT 51a (a)
3.60.2 Hittite

## TI-NI

Table 60.2.1. Combination of clusters from HT 51a (a)

### 3.61 Artefact HT 51b

Transcription of Linear A characters on artefact HT 51b yielded strings under two distinct rows of clusters:
a. $\mid$ KU-ME-TA $\mid$
b. $\mid$ ZU-DU $\mid$

ITT :SAb


.3 Jvestigia
Image 61. Standardised inscription of HT 51b, obtained from GORILA 1

### 3.61.1 Common Semitic / Middle Egyptian

| K-M-T |  |
| :---: | :---: |
| K-M | M-T |

Table 61.1.1. Combination of clusters from HT 51b (a)

## Z-D

Table 61.1.2. Combination of clusters from HT 51b (b)

### 3.61.2 Hittite

| KU-ME-TA |  |  |
| :---: | :---: | :---: |
| KU-ME | ME-TA |  |

Table 61.2.1. Combination of clusters from HT 51b (a)

## ZU-DU

Table 61.2.2. Combination of clusters from HT 51b (b)

### 3.62 Artefact HT 52a

Transcription of Linear A characters on artefact HT 52a yielded strings under two distinct rows of clusters:
a. SA-MA
b. DI-KA-KI

## $\mathrm{HT}^{\mathbf{6}} \mathbf{m a t}_{\mathbf{n}}$

：（ y 弟）新，［
－＂．（T）$\oplus$ 时
s


Image 62．Standardised inscription of HT 52a，obtained from GORILA 1

3．62．1 Common Semitic／Middle Egyptian
S－M
Table 62．1．1．Combination of clusters from HT 52a（a）

| D－K－K |  |
| :---: | :---: |
| D－K | K－K |

Table 62．1．2．Combination of clusters from HT 52a（b）

3．62．2 Hittite

## SA－MA

Table 62．2．1．Combination of clusters from HT 52a（a）

| DI－KA－KI |  |
| :---: | :---: |
| DI－KA | KA－KI |

Table 62．2．2．Combination of clusters from HT 52a（b）

## 3．63 Artefact HT 53a

Transcription of Linear A characters on artefact HT 53a yielded a string under one distinct row of cluster：
a． $\mid$ SA－NE $\mid$
HT ：354


Image 63．Standardised inscription of HT 53a，obtained from GORILA 1

## 3．63．1 Common Semitic／Middle Egyptian

## S－N

Table 63．1．1．Combination of clusters from HT 53a（a）

## SA-NE

Table 63.2.1. Combination of clusters from HT 53a (a)

### 3.64 Artefact HT 53b

Transcription of Linear A characters on artefact HT 53a yielded a string under one distinct row of cluster:
a. $|K U-R O|$

ITT :6\%b


Image 64. Standardised inscription of HT 53b, obtained from GORILA 1
3.64.1 Common Semitic / Middle Egyptian
K-R

Table 64.1.1. Combination of clusters from HT 53b (a)

### 3.64.2 Hittite

## KU-RO

Table 64.2.1. Combination of clusters from HT 53b (a)

### 3.65 Artefact HT 54a

Transcription of Linear A characters on artefact HT 54a yielded strings under two distinct rows of clusters:
a. $\mid$ KU-MI-NA-QE $\mid$
b. |KI-MI-RA $\mid$

HT : 54 ha


Image 65. Standardised inscription of HT 54a, obtained from GORILA 1
3.65.1 Common Semitic / Middle Egyptian

| K-M-N-Q |  |  |
| :---: | :---: | :---: |
| K-M-N | K-M | M-N |
| M-N-Q | N-Q |  |

Table 65.1.1. Combination of clusters from HT 54a (a)

| K-M-R |  |
| :---: | :---: | :---: |
| K-M | M-R |

Table 65.1.2. Combination of clusters from HT 54a (b)

### 3.65.2 Hittite

| KU-MI-NA-QE |  |  |
| :---: | :---: | :---: |
| KU-MI-NA | KU-MI | MI-NA |
| MI-NA-QE | NA-QE |  |

Table 65.2.1. Combination of clusters from HT 54a (a)

| KI-MI-RA |  |  |
| :---: | :---: | :---: |
| KI-MI | MI-RA |  |

Table 65.2.2. Combination of clusters from HT 54a (b)

### 3.66 Artefact HT 55a

Transcription of Linear A characters on artefact HT 55a yielded strings under two distinct rows of clusters:
a. $\mid$ KI-RO $\mid$ MA-RE $\mid$
b. $\mid$ SI-RU $\mid$

HTT $\mathbf{3 F} \mathbf{5 1}$


Image 66. Standardised inscription of HT 55a, obtained from GORILA 1
3.66.1 Common Semitic / Middle Egyptian

| $\mathbf{K - R}$ |
| :---: |
| $\mathbf{M - R}$ |

Table 66.1.1. Combination of clusters from HT 55a (a)

## S-R

Table 66.1.2. Combination of clusters from HT 55a (b)
3.66.2 Hittite

| KI-RO |
| :---: |
| MA-RE |

Table 66.2.1. Combination of clusters from HT 55a (a)

## SI-RU

Table 66.2.2. Combination of clusters from HT 55a (b)

### 3.67 Artefact HT 55b

Transcription of Linear A characters on artefact HT 55b yielded a string under one distinct row of cluster:
a. $\mid$ RI-JA $\mid$


Image 67. Standardised inscription of HT 55b, obtained from GORILA 1
3.67.1 Common Semitic / Middle Egyptian

## R-J

Table 67.1.1. Combination of clusters from HT 55b (a)
3.67.2 Hittite

## RI-JA

Table 67.2.1. Combination of clusters from HT 55b (a)

### 3.68 Artefact HT 57a

Transcription of Linear A characters on artefact HT 57a yielded a string under one distinct row of cluster:
a. DA-QE-RA |

HT 3TM
14 ( 1 O2)
2 ] H
: 175
Image 68. Standardised inscription of HT 57a, obtained from GORILA 1
3.68.1 Common Semitic / Middle Egyptian

|  | D-Q |  |
| :---: | :---: | :---: |
| D-Q | Q-R |  |

Table 68.1.1. Combination of clusters from HT 57a (a)

### 3.68.2 Hittite

| DA-QE-RA |  |
| :---: | :---: |
| DA-QE | QE-RA |

Table 68.2.1. Combination of clusters from HT 57a (a)

### 3.69 Artefact HT 58

Transcription of Linear A characters on artefact HT 58 yielded strings under two distinct rows of clusters:
a. QE-TI-RA-DU |
b. U-KI

HIT $\mathbf{3 8}$


s $\bar{z} ; 1 \quad \infty=[$
4 [ $[\mathrm{F} \theta \mathrm{\theta}]$
Image 69. Standardised inscription of HT 58, obtained from GORILA 1
3.69.1 Common Semitic / Middle Egyptian

| Q-T-R-D |  |  |
| :---: | :---: | :---: |
| Q-T-R | Q-T | T-R |
| T-R-D | R-D |  |

Table 69.1.1. Combination of clusters from HT 58 (a)

## U-K

Table 69.1.2. Combination of clusters from HT 58 (b)

### 3.69.2 Hittite

| QE-TI-RA-DU |  |  |
| :---: | :---: | :---: |
| QE-TI-RA | QE-TI | TI-RA |
| TI-RA-DU | RA-DU |  |

Table 69.2.1. Combination of clusters from HT 58 (a)

## U-KI

Table 69.2.2. Combination of clusters from HT 58 (b)

### 3.70 Artefact HT 61

Transcription of Linear A characters on artefact HT 61 yielded a string under one distinct row of cluster:
a. $|\mathrm{MI}-\mathrm{TI}|$

HT 64


Image 70. Standardised inscription of HT 61, obtained from GORILA 1
3.70.1 Common Semitic / Middle Egyptian

## M-T

Table 70.1.1. Combination of clusters from HT 61 (a)

### 3.70.2 Hittite

## MI-TI

Table 70.2.1. Combination of clusters from HT 61 (a)

### 3.71 Artefact HT 62 [+] 73

Transcription of Linear A characters on artefact HT 62 [+] 73 yielded strings under three distinct rows of clusters:
a. SA-RA |
b. $|\mathrm{KA}-\mathrm{KU}|$
c. $\mathrm{I}-\mathrm{TI} \mid$

## 



Image 71. Standardised inscription of HT 62 [+] 73, obtained from GORILA 1

### 3.71.1 Common Semitic / Middle Egyptian

## S-R

Table 71.1.1. Combination of clusters from HT 62 [+] 73 (a)

## K-K

Table 71.1.2. Combination of clusters from HT 62 [+] 73 (b)

## I-T

Table 71.1.3. Combination of clusters from HT 62 [+] 73 (c)
3.71.2 Hittite

SA-RA
Table 71.2.1. Combination of clusters from HT 62 [+] 73 (a)

## KA-KU

Table 71.2.2. Combination of clusters from HT 62 [+] 73 (b)

## I-TI

Table 71.2.3. Combination of clusters from HT 62 [+] 73 (c)

### 3.72 Artefact HT 73 [+] 62

Transcription of Linear A characters on artefact HT 73 [+] 62 yielded strings under two distinct rows of clusters:
a. |PA-I-KI $\mid$
b. $\mid$ SA-RO-QE $\mid$

## HT $20[4] 6=$



Image 72. Standardised inscription of HT 73 [+] 62, obtained from GORILA 1
3.72.1 Common Semitic / Middle Egyptian

|  | P-I-K |
| :---: | :---: |
| P-I | I-K |

Table 72.1.1. Combination of clusters from HT 73 [+] 62 (a)

| S-R-Q |  |
| :---: | :---: |
| S-R | R-Q |

Table 72.1.2. Combination of clusters from HT 73 [+] 62 (b)
3.72.2 Hittite

| PA-I-KI |  |
| :---: | :---: |
| PA-I | I-KI |

Table 72.2.1. Combination of clusters from HT 73 [+] 62 (a)

| SA-RO-QE |  |
| :---: | :---: |
| SA-RO | RO-QE |

Table 72.2.2. Combination of clusters from HT 73 [+] 62 (b)

### 3.73 Artefact HT 63

Transcription of Linear A characters on artefact HT 63 yielded strings under one distinct row of clusters:
a. $\mid$ KA-TI $\mid$ SU-PU

H'T 68


Image 73. Standardised inscription of HT 63, obtained from GORILA 1
3.73.1 Common Semitic / Middle Egyptian

| K-T |
| :---: |
| S-P |

Table 73.1.1. Combination of clusters from HT 63 (a)

### 3.73.2 Hittite

| KA-TI |
| :--- |
| SU-PU |

Table 73.2.1. Combination of clusters from HT 63 (a)

### 3.74 Artefact HT 64

Transcription of Linear A characters on artefact HT 64 yielded strings under two distinct rows of clusters:
a. |KU-ZU-NA
b. |RU-MA

HT (6)


Image 74. Standardised inscription of HT 64, obtained from GORILA 1
3.74.1 Common Semitic / Middle Egyptian

| K-Z-N |  |
| :---: | :---: |
| K-Z | Z-N |

Table 74.1.1. Combination of clusters from HT 64 (a)

## R-M

Table 74.1.2. Combination of clusters from HT 64 (b)

### 3.74.2 Hittite

| KU-ZU-NA |  |
| :---: | :---: |
| KU-ZU | ZU-NA |

Table 74.2.1. Combination of clusters from HT 64 (a)

## RU-MA

Table 74.2.2. Combination of clusters from HT 64 (b)

### 3.75 Artefact HT 66

Transcription of Linear A characters on artefact HT 66 yielded a string under one distinct row of cluster:
a. TA-MI|

III 66
1电 知 [
$2 \pi_{1}^{\prime \prime}{ }^{\prime \prime}$ -

- (CQ)
+ $\psi$,
Image 75. Standardised inscription of HT 66, obtained from GORILA 1


### 3.75.1 Common Semitic / Middle Egyptian

## T-M

Table 75.1.1. Combination of clusters from HT 66 (a)
3.75.2 Hittite

## TA-MI

Table 75.2.1. Combination of clusters from HT 66 (a)

### 3.76 Artefact HT 67

Transcription of Linear A characters on artefact HT 67 yielded strings under one distinct row of cluster:
a. KU-RO

HT $6 \mathbf{z}$


Image 76. Standardised inscription of HT 67, obtained from GORILA 1

### 3.76.1 Common Semitic / Middle Egyptian

## K-R

Table 76.1.1. Combination of clusters from HT 67 (a)

## KU-RO

Table 76.2.1. Combination of clusters from HT 67 (a)

### 3.77 Artefact HT 69

Transcription of Linear A characters on artefact HT 69 yielded a string under one distinct row of cluster:
a. MA-DI|

H'T (6)


Image 77. Standardised inscription of HT 69, obtained from GORILA 1

### 3.77.1 Common Semitic / Middle Egyptian

## M-D

Table 77.1.1. Combination of clusters from HT 69 (a)
3.77.2 Hittite
$\square$
MA-DI
Table 77.2.1. Combination of clusters from HT 69 (a)

### 3.78 Artefact HT 74

Transcription of Linear A characters on artefact HT 74 yielded a string under one distinct row of cluster:
a. |KU-RO


Image 78. Standardised inscription of HT 74, obtained from GORILA 1

### 3.78.1 Common Semitic / Middle Egyptian

## K-R

Table 78.1.1. Combination of clusters from HT 74 (a)

## KU-RO

Table 78.2.1. Combination of clusters from HT 74 (a)

### 3.79 Artefact HT 75

Transcription of Linear A characters on artefact HT 75 yielded a string under one distinct row of cluster:
a. KA-RU

III $\mathbf{7 6}$
$1(\oplus \uparrow)$ -
Image 79. Standardised inscription of HT 75, obtained from GORILA 1
3.79.1 Common Semitic / Middle Egyptian

## K-R

Table 79.1.1. Combination of clusters from HT 75 (a)

### 3.79.2 Hittite

## KA-RU

Table 79.2.1. Combination of clusters from HT 75 (a)

### 3.80 Artefact HT 79 [+] 83

Transcription of Linear A characters on artefact HT 79 [+] 83 yielded strings under three distinct rows of clusters:
a. DA-PA
b. |TU-PA-RI|
c. $|\mathrm{KU}-\mathrm{NI}|$

## 



Image 80. Standardised inscription of HT 79 [+] 83, obtained from GORILA 1
3.80.1 Common Semitic / Middle Egyptian

## D-P

Table 80.1.1. Combination of clusters from HT 79 [+] 83 (a)

| T-P-R |  |
| :---: | :---: |
| T-P | P-R |

Table 80.1.2. Combination of clusters from HT 79 [+] 83 (b)
$\square$
K-N
Table 80.1.3. Combination of clusters from HT 79 [+] 83 (c)
3.80.2 Hittite

## DA-PA

Table 80.2.1. Combination of clusters from HT 79 [+] 83 (a)

| TU-PA-RI |  |
| :---: | :---: |
| TU-PA PA-RI |  |

Table 80.2.2. Combination of clusters from HT 79 [+] 83 (b)

## KU-NI

Table 80.2.3. Combination of clusters from HT 79 [+] 83 (c)

### 3.81 Artefact HT 80

Transcription of Linear A characters on artefact HT 80 yielded a string under one distinct row of cluster:
a. |JU-RA

ITI : 80


Image 81. Standardised inscription of HT 80, obtained from GORILA 1
3.81.1 Common Semitic / Middle Egyptian

## J-R

Table 81.1.1. Combination of clusters from HT 80 (a)

### 3.81.2 Hittite

## JU-RA

Table 81.2.1. Combination of clusters from HT 80 (a)

### 3.82 Artefact HT 81

Transcription of Linear A characters on artefact HT 81 yielded strings under two distinct rows of clusters:
a. A-SE
b. RI-SU-MA |

TI m


Image 82. Standardised inscription of HT 81, obtained from GORILA 1
3.82.1 Common Semitic / Middle Egyptian

## ASS

Table 82.1.1. Combination of clusters from HT 81 (a)

| R-S-M |  |
| :---: | :---: | :---: |
| R-S | S-M |

Table 82.1.2. Combination of clusters from HT 81 (b)

### 3.82.2 Hittite

## A-SE

Table 82.2.1. Combination of clusters from HT 81 (a)

| RI-SU-MA |  |
| :---: | :---: |
| RI-SU | SU-MA |

Table 82.2.2. Combination of clusters from HT 81 (b)

### 3.83 Artefact HT 84

Transcription of Linear A characters on artefact HT 84 yielded strings under two distinct rows of clusters:
a. QI-JA-DU |
b. NU-TI ITT 84


3 vest [
Image 83. Standardised inscription of HT 84, obtained from GORILA 1

### 3.83.1 Common Semitic / Middle Egyptian

| Q-J-D |  |
| :---: | :---: |
| Q-J J-D |  |

Table 83.1.1. Combination of clusters from HT 84 (a)

## N-T

Table 83.1.2. Combination of clusters from HT 84 (b)
3.83.2 Hittite

| QI-JA-DU |  |
| :---: | :---: |
| QI-JA | JA-DU |

Table 83.2.1. Combination of clusters from HT 84 (a)

## NU-TI

Table 83.2.2. Combination of clusters from HT 84 (b)

### 3.84 Artefact HT 85a

Transcription of Linear A characters on artefact HT 85a yielded strings under six distinct rows of clusters:
a. A-DU |
b. DA-RI-DA |PA-NI|
c. $\mathrm{U} * 325 \mathrm{ZA} \mid \mathrm{DA}-\mathrm{SI}$
d. |KU-ZU-NI|
e. TE-KE|DA-RE|
f. KU-RO


Image 84. Standardised inscription of HT 85a, obtained from GORILA 1
3.84.1 Common Semitic / Middle Egyptian

Table 84.1.1. Combination of clusters from HT 85a (a)

| D-R-D |  |  |  |
| :---: | :---: | :---: | :---: |
| D-R | R-D |  |  |
|  |  |  |  |

Table 84.1.2. Combination of clusters from HT 85a (b)

## D-S

Table 84.1.3. Combination of clusters from HT 85a (c)

| K-Z-N |  |
| :---: | :---: |
| K-Z | Z-N |

Table 84.1.4. Combination of clusters from HT 85a (d)

## T-K <br> D-R

Table 84.1.5. Combination of clusters from HT 85a (e)

## K-R

Table 84.1.6. Combination of clusters from HT 85a (f)
3.84.2 Hittite

## A-DU

Table 84.2.1. Combination of clusters from HT 85a (a)

| DA-RI-DA |  |  |
| :---: | :---: | :---: |
| DA-RI |  | RI-DA |
| PA-NI |  |  |

Table 84.2.2. Combination of clusters from HT 85a (b)

## DA-SI

Table 84.2.3. Combination of clusters from HT 85a (c)

| KU-ZU-NI |  |
| :---: | :---: |
| KU-ZU | ZU-NI |

Table 84.2.4. Combination of clusters from HT 85a (d)

| TE-KE |
| :---: |
| DA-RE |

Table 84.2.5. Combination of clusters from HT 85a (e)

## KU-RO

Table 84.2.6. Combination of clusters from HT 85a (f)

## 3．85 Artefact HT 85b

Transcription of Linear A characters on artefact HT 85b yielded strings under five distinct rows of clusters：
a．KI－KI－RA－JA｜KI－RE
b．TA $\mid$ QE－KA $\mid$ TE－TU
c．$|\mathrm{ME}-\mathrm{ZA}|$
d．RE－DI－SE｜WA－DU－NI
e． $\mathrm{MI}|\mathrm{MA}-\mathrm{DI}| \mathrm{QA} * 310$
HIT ：3：3）

$$
\begin{aligned}
& 3[]!\bigoplus!\bar{\prime}\left(\begin{array}{ll}
0 & 0
\end{array}\right) \\
& 4 \text { ( } 4 \text { 严 业) 浱 } 77 * * *
\end{aligned}
$$

$$
\begin{aligned}
& 6 \quad{ }_{6} 1
\end{aligned}
$$

Image 85．Standardised inscription of HT 85b，obtained from GORILA 1

3．85．1 Common Semitic／Middle Egyptian

| K－K－R－J |  |  |
| :---: | :---: | :---: |
| K－K－R | K－K | K－R |
| K－R－J | R－J |  |

Table 85．1．1．Combination of clusters from HT 85b（a）

| K－R－T |  |
| :---: | :---: |
| K－R | R－T |

Table 85．1．2．Combination of clusters from HT 85b（a）－（b）

| Q－K |
| :---: |
| T－T |

Table 85．1．3．Combination of clusters from HT 85b（b）

## M－Z

Table 85．1．4．Combination of clusters from HT 85b ©

| R－D－S |  |
| :---: | :---: |
| R－D | D－S |

Table 85．1．5．Combination of clusters from HT 85b（d）

| W-D-N-M |  |  |
| :---: | :---: | :---: |
| W-D-N | W-D | D-N |
| D-N-M | N-M |  |

Table 85.1.6. Combination of clusters from HT 85b (d)-(e)

## M-D

Table 85.1.7. Combination of clusters from HT 85b (e)
3.85.2 Hittite

| KI-KI-RA-JA |  |  |
| :---: | :---: | :---: |
| KI-KI-RA | KI-KI | KI-RA |
| KI-RA-JA | RA-JA |  |

Table 85.2.1. Combination of clusters from HT 85b (a)

|  | KI-RE-TA |
| :---: | :---: |
| KI-RE | RE-TA |

Table 85.2.2. Combination of clusters from HT 85b (a)-(b)

## QE-KA <br> TE-TU

Table 85.2.3. Combination of clusters from HT 85b (b)

## ME-ZA

Table 85.2.4. Combination of clusters from HT 85b (c)

| RE-DI-SE |  |
| :---: | :---: | :---: |
| RE-DI | DI-SE |

Table 85.2.5. Combination of clusters from HT 85b (d)

| WA-DU-NI-MI |  |  |
| :---: | :---: | :---: |
| WA-DU-NI | WA-DU | DU-NI |
| DU-NI-MI | NI-MI |  |

Table 85.2.6. Combination of clusters from HT 85b (d)-(e)

## MA-DI

Table 85.2.7. Combination of clusters from HT 85b (e)

### 3.86 Artefact HT 86a

Transcription of Linear A characters on artefact HT 86a yielded strings under five distinct rows of clusters:
a．A－KA－RU｜KU－NI
b．SU｜SA－RU｜
c．DI－DE－RU｜QA－RA－WA｜
d．A－DU｜DA－ME＊580｜
e．MI－NU－TE
HT ：86a

$$
\begin{aligned}
& { }_{1}\left(T^{\prime} \oplus \Psi\right),\left[\mathcal{F}_{1}^{*}\right. \\
& \left.2[] \Psi_{T} d==(Y \varphi\rangle\right)= \\
& 3(\pi \bar{\pi} \omega)=(-0-\geqslant \pi) \\
& .4\left(\overline{T^{\prime}} 7 \pi\right) \cdot\left(\begin{array}{ll}
1-1) & \Phi_{t}
\end{array}\right): \\
& \text { s(し) H 丰): } \\
& 6
\end{aligned}
$$

Image 86．Standardised inscription of HT 86a，obtained from GORILA 1

## 3．86．1 Common Semitic／Middle Egyptian

| A－K－R |  |
| :---: | :---: |
| A－K K－R |  |

Table 86．1．1．Combination of clusters from HT 86a（a）

| K－N－S |  |
| :---: | :---: |
| K－N | N－S |

Table 86．1．2．Combination of clusters from HT 86a（a）－（b）

## S－R

Table 86．1．3．Combination of clusters from HT 86a（b）

| D－D－R |  |  |
| :---: | :---: | :---: |
| D－D |  | D－R |
| Q－R | Q－R | R－W |

Table 86．1．4．Combination of clusters from HT 86a（c）

| A－D |
| :---: |
| $\mathbf{D}-\mathbf{M}$ |

Table 86．1．5．Combination of clusters from HT 86a（d）

| M－N－T |  |
| :---: | :---: |
| M－N | $\mathrm{N}-\mathrm{T}$ |

Table 86．1．6．Combination of clusters from HT 86a（e）
3.86.2 Hittite

| A-KA-RU |  |
| :---: | :---: |
| A-KA KA-RU |  |

Table 86.2.1. Combination of clusters from HT 86a (a)

| KU-NI-SU |  |
| :---: | :---: |
| KU-NI NI-SU |  |

Table 86.2.2. Combination of clusters from HT 86a (a)-(b)

## SA-RU

Table 86.2.3. Combination of clusters from HT 86a (b)

| DI-DE-RU |  |  |
| :---: | :---: | :---: |
| DI-DE |  | DE-RU |
| QA-RA | QA-RA-WA |  |

Table 86.2.4. Combination of clusters from HT 86a (c)

| A-DU |
| :---: |
| DA-ME |

Table 86.2.5. Combination of clusters from HT 86a (d)

|  | MI-NU-TE |  |
| :---: | :---: | :---: |
| MI-NU | NU-TE |  |

Table 86.2.6. Combination of clusters from HT 86a (e)

### 3.87 Artefact HT 87

Transcription of Linear A characters on artefact HT 87 yielded strings under five distinct rows of clusters:
a. QI-TU-NE |MA-KA
b. RI-TE |PI-TA-KE-SI $\mid$
c. JA-RE-MI|DI-KI-SE
d. QE-SU-PU |KU-RU-KU
e. A-RA|A-TU

HTT ：3Z

$$
\begin{aligned}
& 1 \text { (Af 立王) [ } 由 \oplus \\
& 2 \text { 渄 ( } ⿻ \text { ( }
\end{aligned}
$$

$$
\begin{aligned}
& s(T \mathcal{L})[\cdot]\left[\begin{array}{l}
(T)
\end{array}\right)!
\end{aligned}
$$

Image 87．Standardised inscription of HT 87，obtained from GORILA 1

3．87．1 Common Semitic／Middle Egyptian

| Q－T－N |  |
| :---: | :---: |
| Q－T | T－N |

Table 87．1．1．Combination of clusters from HT 87 （a）

| M－K－R－T |  |  |
| :---: | :---: | :---: |
| M－K－R | M－K | K－R |
| K－R－T | R－T |  |

Table 87．1．2．Combination of clusters from HT 87 （a）－（b）

| P－T－K－S |  |  |
| :---: | :---: | :---: |
| P－T－K | P－T | T－K |
| T－K－S | K－S |  |

Table 87．1．3．Combination of clusters from HT 87 （b）

| J－R－M |  |  |
| :---: | :---: | :---: |
| J－R | R－M |  |
| D－K | D－S |  |
| D－S |  |  |

Table 87．1．4．Combination of clusters from HT 87 （c）

| Q－S－P |  |  |
| :---: | :---: | :---: |
| Q－S |  | S－P |
| K－R－K |  |  |
| K－R |  | R－K |

Table 87．1．5．Combination of clusters from HT 87 （d）

| A－R |
| :---: |
| $\mathbf{A - T}$ |

Table 87．1．6．Combination of clusters from HT 87 （e）
3.87.2 Hittite

| QI-TU-NE |  |
| :---: | :---: | :---: |
| QI-TU | TU-NE |

Table 87.2.1. Combination of clusters from HT 87 (a)

| MA-KA-RI-TE |  |  |
| :---: | :---: | :---: |
| MA-KA-RI | MA-KA | KA-RI |
| KA-RI-TE | RI-TE |  |

Table 87.2.2. Combination of clusters from HT 87 (a)-(b)

| PI-TA-KE-SI |  |  |
| :---: | :---: | :---: |
| PI-TA-KE | PI-TA | TA-KE |
| TA-KE-SI | KE-SI |  |

Table 87.2.3. Combination of clusters from HT 87 (b)

| JA-RE-MI |  |  |
| :---: | :---: | :---: |
| JA-RE |  | RE-MI |
| DI-KI-SE |  |  |
| DI-KI |  | KI-SE |

Table 87.2.4. Combination of clusters from HT 87 (c)

| QE-SU-PU |  |  |
| :---: | :---: | :---: |
| QE-SU |  | SU-PU |
|  | KU-RU-KU |  |
| KU-RU |  | RU-KU |

Table 87.2.5. Combination of clusters from HT 87 (d)

| A-RA |
| :--- |
| $\mathbf{A - T U}$ |

Table 87.2.6. Combination of clusters from HT 87 (e)

### 3.88 Artefact HT 88

Transcription of Linear A characters on artefact HT 88 yielded strings under five distinct rows of clusters:
a. A-DU *568 |RE-ZA
b. $|\mathrm{KI}-\mathrm{KI}-\mathrm{NA}|$
c. KI-RO|KU-PA-PA|KA-JU|
d. KU-PA-NU|PA-JA-RE |SA-MA
e. RO|DA-TA-RE|KU-RO

$$
\begin{aligned}
& .1(H) \div H=\left[\begin{array}{ll}
H & +
\end{array}\right]
\end{aligned}
$$

.3 vacat


$6 \quad t]!\left(f\left[\begin{array}{ll}7 & \psi\end{array}\right) \cdot(\exists+) 111\right.$
Image 88. Standardised inscription of HT 88, obtained from GORILA 1

### 3.88.1 Common Semitic / Middle Egyptian

| $\mathbf{A - D}$ |
| :--- |
| $\mathbf{R - Z}$ |

Table 88.1.1. Combination of clusters from HT 88 (a)

| K-K-N |  |
| :---: | :---: |
| K-K | K-N |

Table 88.1.2. Combination of clusters from HT 88 (b)

| K-R |  |  |
| :---: | :---: | :---: |
| K-P-P |  |  |
| K-P |  |  |
|  | K-J |  |

Table 88.1.3. Combination of clusters from HT 88 (c)

| K-P-N |  |  |
| :---: | :---: | :---: |
| K-P |  | P-N |
| P-J | P-J |  |

Table 88.1.4. Combination of clusters from HT 88 (d)

| S-M-R |  |
| :---: | :---: |
| S-M | M-R |

Table 88.1.5. Combination of clusters from HT 88 (d)-(e)

| D-T-R |  |  |
| :---: | :---: | :---: |
| D-T | T-R |  |
|  | $\mathbf{K - R}$ |  |

Table 88.1.6. Combination of clusters from HT 88 (e)

### 3.88.2 Hittite

| A-DU |
| :---: |
| RE-ZA |

Table 88.2.1. Combination of clusters from HT 88 (a)

| KI-KI-NA |  |
| :---: | :---: |
| KI-KI |  |

Table 88.2.2. Combination of clusters from HT 88 (b)

| KI-RO |  |  |
| :---: | :---: | :---: |
| KU-PA-PA |  |  |
| KU-PA | KA-JU |  |
| KA-PA |  |  |

Table 88.2.3. Combination of clusters from HT 88 (c)

| KU-PA-NU |  |  |
| :---: | :---: | :---: |
| KU-PA |  |  |
| PA-JA-RE | PA-NU |  |
| PA-JA | JA-RE |  |

Table 88.2.4. Combination of clusters from HT 88 (d)

|  | SA-MA-RO |
| :---: | :---: |
| SA-MA | MA-RO |

Table 88.2.5. Combination of clusters from HT 88 (d)-(e)

| DA-TA-RE |  |  |
| :---: | :---: | :---: |
| DA-TA | TA-RE |  |
| KU-RO |  |  |

Table 88.2.6. Combination of clusters from HT 88 (e)

### 3.89 Artefact HT 89

Transcription of Linear A characters on artefact HT 89 yielded strings under four distinct rows of clusters:
a. A-SA-RA $\mid$
b. $\mid$ MA-I-MI $\mid$
c. $\mid$ TA-RA $\mid$
d. KU-RO

# $1(T Y 77) \frac{1}{1+} \cdot \Sigma_{1}=1!$ <br> 2 野 $=1\left(\oplus \frac{\omega}{1} \angle 0\right)=!!$ <br>  <br>  <br>  

Image 89. Standardised inscription of HT 89, obtained from GORILA 1
3.89.1 Common Semitic / Middle Egyptian

| A-S-R |  |
| :---: | :---: | :---: |
| A-S | S-R |

Table 89.1.1. Combination of clusters from HT 89 (a)

| M-I-M |  |
| :---: | :---: |
| M-I | I-M |

Table 89.1.2. Combination of clusters from HT 89 (b)

## T-R

Table 89.1.3. Combination of clusters from HT 89 (c)

## K-R

Table 89.1.4. Combination of clusters from HT 89 (d)
3.89.2 Hittite

| A-SA-RA |  |  |
| :---: | :---: | :---: |
| A-SA | SA-R |  |

Table 89.2.1. Combination of clusters from HT 89 (a)

| MA-I-MI |  |
| :---: | :---: |
| MA-I | I-MI |

Table 89.2.2. Combination of clusters from HT 89 (b)

## TA-RA

Table 89.2.3. Combination of clusters from HT 89 (c)

## KU-RO

Table 89.2.4. Combination of clusters from HT 89 (d)

## 3．90 Artefact HT 90

Transcription of Linear A characters on artefact HT 90 yielded strings under two distinct rows of clusters：
a．I－KU－RI－NA－SA－RA｜SI
b．RU－MA－RI－TA
ITT 90

$$
\begin{aligned}
& 2=A_{1}^{*}-\text { 河 }_{11}
\end{aligned}
$$

$$
\begin{aligned}
& 41201 \text { 个1 } \\
& 5 \text { vacat }
\end{aligned}
$$

Image 90．Standardised inscription of HT 90，obtained from GORILA 1

3．90．1 Common Semitic／Middle Egyptian

| I－K－R－N－S－R |  |  |
| :---: | :---: | :---: |
| I－K－R－N－S | I－K－R－N | I－K－R |
| I－K | K－R－N－S－R | K－R－N－S |
| K－R－N | K－R | R－N－S－R |
| R－N－S | R－N | N－S－R |
| N－S | S－R |  |

Table 90．1．1．Combination of clusters from HT 90 （a）

| S－R－M－R－T |  |  |
| :---: | :---: | :---: |
| S－R－M－R | S－R－M | S－R |
| R－M－R－T | R－M－R | R－M |
| M－R－T | M－R | R－T |

Table 90．1．2．Combination of clusters from HT 90 （a）－（b）

## 3．90．2 Hittite

| I－KU－RI－NA－SA－RA |  |  |
| :---: | :---: | :---: |
| I－KU－RI－NA－SA | I－KU－RI－NA | I－KU－RI |
| I－KU | KU－RI－NA－SA－RA | KU－RI－NA－SA |
| KU－RI－NA | KU－RI | RI－NA－SA－RA |
| RI－NA－SA | RI－NA | NA－SA－RA |
| NA－SA | SA－RA |  |

Table 90．2．1．Combination of clusters from HT 90 （a）

## SI－RU－MA－RI－TA

| SI-RU-MA-RI | SI-RU-MA | SI-RU |
| :---: | :---: | :---: |
| RU-MA-RI-TA | RU-MA-RI | RU-MA |
| MA-RI-TA | MA-RI | RI-TA |

Table 90.2.2. Combination of clusters from HT 90 (a)-(b)

### 3.91 Artefact HT 91

Transcription of Linear A characters on artefact HT 91 yielded strings under three distinct rows of clusters:
a. $\mathrm{I}-\mathrm{KA} \mid$
b. PA-E
c. TE-RI

IIT 94


Image 91. Standardised inscription of HT 91, obtained from GORILA 1
3.91.1 Common Semitic / Middle Egyptian

## I-K

Table 91.1.1. Combination of clusters from HT 91 (a)

## P-E

Table 91.1.2. Combination of clusters from HT 91 (b)

## T-R

Table 91.1.3. Combination of clusters from HT 91 (c)
3.91.2 Hittite

## I-KA

Table 91.2.1. Combination of clusters from HT 91 (a)

## PA-E

Table 91.2.2. Combination of clusters from HT 91 (b)

## TE-RI

Table 91.2.3. Combination of clusters from HT 91 (c)

## 3．92 Artefact HT 92

Transcription of Linear A characters on artefact HT 92 yielded strings under one distinct row of clusters：
a．$|A-D U|$
HTT $9 \mathbf{9}$
1 半．（什不）＂ $48 \%$
$2 \equiv \equiv=\uparrow-1$
．3－4 vacant

Image 92．Standardised inscription of HT 92，obtained from GORILA 1

## 3．92．1 Common Semitic／Middle Egyptian

## A－D

Table 92．1．1．Combination of clusters from HT 92 （a）

## 3．92．2 Hittite

## A－DU

Table 92．2．1．Combination of clusters from HT 92 （a）

## 3．93 Artefact HT 93a

Transcription of Linear A characters on artefact HT 93a yielded strings under eight distinct rows of clusters：
a．PA－NI－NA｜DI
b．RI－NA｜KI－DI
c． $\mathrm{NI}|\mathrm{A}-\mathrm{SE}| \mathrm{I}$
d．$* 574$｜SA－RA｜QA－QA
e． $\mathrm{RU}|\mathrm{I} * 574|$
f．｜DE－JU－KU｜O－TI
g．｜DA－RI－DA｜
h．PA－NI－NA $\mid$ PA－SE－JA $\mid$







8 （月＊＊in 軘世目）：
，只•T
］－$\oplus_{11}^{\prime \prime}$
Image 93．Standardised inscription of HT 93a，obtained from GORILA 1

3．93．1 Common Semitic／Middle Egyptian

| P－N－N |  |
| :---: | :---: |
| P－N | N－N |

Table 93．1．1．Combination of clusters from HT 93a（a）

| D－R－N |  |
| :---: | :---: |
| D－R | R－N |

Table 93．1．2．Combination of clusters from HT 93a（a）－（b）

| K－D－N |  |
| :---: | :---: |
| K－D | D－N |

Table 93．1．3．Combination of clusters from HT 93a（b）－（c）

## A－S

Table 93．1．4．Combination of clusters from HT 93a（c）

## S－R

Table 93．1．5．Combination of clusters from HT 93a（d）

| Q－Q－R |  |  |  |
| :---: | :---: | :---: | :---: |
| Q－Q | Q－R |  |  |

Table 93．1．6．Combination of clusters from HT 93a（d）－（e）

| D-J-K |  |  |
| :---: | :---: | :---: |
| D-J | J-K |  |
| $\mathbf{O - T}$ |  |  |

Table 93.1.7. Combination of clusters from HT 93a (f)

| D-R-D |  |
| :---: | :---: |
| D-R | R-D |

Table 93.1.8. Combination of clusters from HT 93a (g)

| P-N-N |  |  |
| :---: | :---: | :---: |
| P-N | P-N |  |
| P-S |  |  |
| P-S | S-J |  |

Table 93.1.9. Combination of clusters from HT 93a (h)
3.93.2 Hittite

|  | PA-NI-NA |
| :---: | :---: |
| PA-NI | NI-NA |

Table 93.2.1. Combination of clusters from HT 93a (a)

| DI-RI-NA |  |
| :---: | :---: |
| DI-RI | RI-NA |

Table 93.2.2. Combination of clusters from HT 93a (a)-(b)

| KI-DI-NI |  |
| :---: | :---: | :---: |
| KI-DI | DI-NI |

Table 93.2.3. Combination of clusters from HT 93a (b)-(c)

## A-SE

Table 93.2.4. Combination of clusters from HT 93a ©

## SA-RA

Table 93.2.5. Combination of clusters from HT 93a (d)

| QA-QA-RU |  |  |
| :---: | :---: | :---: |
| QA-QA | QA-RU |  |

Table 93.2.6. Combination of clusters from HT 93a (d)-(e)

| DE-JU-KU |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| DE-JU |  |  |  |  |
|  | $\mathbf{O - T I}$ | JU-KU |  |  |

Table 93.2.7. Combination of clusters from HT 93a (f)

| DA-RI-DA |  |
| :---: | :---: |
| DA-RI | RI-DA |

Table 93.2.8. Combination of clusters from HT 93a (g)

| PA-NI-NA |  |  |
| :---: | :---: | :---: |
| PA-NI |  | NI-NA |
|  | PA-SE-JA |  |
| PA-SE |  | SE-JA |

Table 93.2.9. Combination of clusters from HT 93a (h)

### 3.94 Artefact HT 93b

Transcription of Linear A characters on artefact HT 93b yielded a string under one distinct row of cluster:
a. |KI-RO

HTT 9\%)


Image 94. Standardised inscription of HT 93b, obtained from GORILA 1
3.94.1 Common Semitic / Middle Egyptian

## K-R

Table 94.1.1. Combination of clusters from HT 93b (a)

### 3.94.2 Hittite

## KI-RO

Table 94.2.1. Combination of clusters from HT 93b (a)

### 3.95 Artefact HT 94a

Transcription of Linear A characters on artefact HT 94a yielded strings under two distinct rows of clusters:
a. KA-PA |
b. KU-RO |SA-RA *303

## HTP 944



.3


.5
] $\left.-11!!<*_{1}\right)_{2}$
6-7
$]_{\text {vacant }}$

Image 95. Standardised inscription of HT 94a, obtained from GORILA 1

### 3.95.1 Common Semitic / Middle Egyptian

## K-P

Table 95.1.1. Combination of clusters from HT 94a (a)

| K-R |
| :--- |
| $\mathbf{S - R}$ |

Table 95.1.2. Combination of clusters from HT 94a (b)
3.95.2 Hittite

## KA-PA

Table 95.2.1. Combination of clusters from HT 94a (a)

| KU-RO |
| :---: |
| SA-RA |

Table 95.2.2. Combination of clusters from HT 94a (b)

### 3.96 Artefact HT 94b

Transcription of Linear A characters on artefact HT 94b yielded strings under five distinct rows of clusters:
a. KI-RO|TU-MA |PA-TA-NE $\mid$
b. DE-DI | KE-KI-RU | SA-RU |
c. KU-RO |
d. $\mid$ DE-ME-TE $\mid$
e. QI-TU |
.$(\forall t) \cdot(\phi b) \cdot(\neq \Gamma I)$

. 3 (3 $+1111[$
.4 vacat

. $6(\mathbb{A} \quad \pm)[\cdot]$ ' $[$

7 vacat
Image 96. Standardised inscription of HT 94b, obtained from GORILA 1

### 3.96.1 Common Semitic / Middle Egyptian

| K-R |  |  |
| :---: | :---: | :---: |
| T-M |  |  |
| P-T-N |  |  |
| P-T | T-N |  |

Table 96.1.1. Combination of clusters from HT 94b (a)

| D-D |  |  |
| :---: | :---: | :---: |
| K-R-R |  |  |
| K-K | K-R |  |

Table 96.1.2. Combination of clusters from HT 94b (b)

## K-R

Table 96.1.3. Combination of clusters from HT 94b (c)

| D-M-T |  |  |
| :---: | :---: | :---: |
| D-M | M-T |  |

Table 96.1.4. Combination of clusters from HT 94b (d)

## Q-T

Table 96.1.5. Combination of clusters from HT 94b (e)

### 3.96.2 Hittite

| KI-RO |
| :---: |
| TU-MA |


| PA－TA－NE |  |
| :---: | :---: | :---: |
| PA－TA | TA－NE |

Table 96．2．1．Combination of clusters from HT 94b（a）

| DE－DI |  |  |
| :---: | :---: | :---: |
| KE－KI－RU |  |  |
| KE－KI |  |  |
| SA－RU |  |  |

Table 96．2．2．Combination of clusters from HT 94b（b）

KU－RO
Table 96．2．3．Combination of clusters from HT 94b（c）

| DE－ME－TE |  |
| :---: | :---: | :--- |
| DE－ME | ME－TE |

Table 96．2．4．Combination of clusters from HT 94b（d）

QI－TU
Table 96．2．5．Combination of clusters from HT 94b（e）

## 3．97 Artefact HT 95a

Transcription of Linear A characters on artefact HT 95a yielded strings under five distinct rows of clusters：
a．DA－DU－MA－TA｜
b．DA－ME｜MI－NU－TE $\mid$
c．SA－RU｜KU－NI－SU
d．$|\mathrm{DI}-\mathrm{DE}-\mathrm{RU}| \mathrm{QE}$
e．RA－U
ITT \＆RIa

$$
\begin{aligned}
& \left.2[f)^{*}\right)-(山 甘 \# \#)- \\
& 3\left(\begin{array}{ll}
Y & \Psi
\end{array}\right)=\left(\begin{array}{lll}
3 & * * & \square
\end{array}\right) \\
& 4 \text { - }\left[\begin{array}{ccc}
\pi & \text { y } \\
1 & \psi
\end{array}\right]-[\because \\
& \text { s >l A A...' }
\end{aligned}
$$

Image 97．Standardised inscription of HT 95a，obtained from GORILA 1

### 3.97.1 Common Semitic / Middle Egyptian

| D-D-M-T |  |  |
| :---: | :---: | :---: |
| D-D-M | D-D | D-M |
| D-M-T | M-T |  |

Table 97.1.1. Combination of clusters from HT 95a (a)

| $\mathbf{D}-\mathbf{M}$ |  |
| :---: | :---: |
| $\mathbf{M - N} \mathbf{T}$ |  |
| M-N | $\mathrm{N}-\mathrm{T}$ |

Table 97.1.2. Combination of clusters from HT 95a (b)

| S-R |  |  |
| :---: | :---: | :---: |
| K-N-S |  |  |
| K-N | N-S |  |

Table 97.1.3. Combination of clusters from HT 95a (c)

| D-D-R |  |
| :---: | :---: |
| D-D | D-R |

Table 97.1.4. Combination of clusters from HT 95a (d)

| Q-R-U |  |
| :---: | :---: |
| Q-R | R-U |

Table 97.1.5. Combination of clusters from HT 95a (d)-(e)

### 3.97.2 Hittite

| DA-DU-MA-TA |  |  |
| :---: | :---: | :---: |
| DA-DU-MA | DA-DU | DU-MA |
| DU-MA-TA | MA-TA |  |

Table 97.2.1. Combination of clusters from HT 95a (a)

| DA-ME |  |  |
| :---: | :---: | :---: |
| MI-NU-TE |  |  |
| MI-NU | NU-TE |  |

Table 97.2.2. Combination of clusters from HT 95a (b)

| SA-RU |  |  |
| :---: | :---: | :---: |
| KU-NI-SU |  |  |
| KU-NI | NI-SU |  |

Table 97.2.3. Combination of clusters from HT 95a (c)

| DI-DE-RU |  |
| :---: | :---: |
| DI-DE | DE-RU |

Table 97.2.4. Combination of clusters from HT 95a (d)

| QE－RA－U |  |
| :---: | :---: |
| QE－RA | RA－U |

Table 97．2．5．Combination of clusters from HT 95a（d）－（e）

## 3．98 Artefact HT 95b

Transcription of Linear A characters on artefact HT 95b yielded strings under five distinct rows of clusters：
a．A－DU $\mid$ SA－RU $\mid$
b．｜DA－ME $\mid \mathrm{MI}$
c．NU－TE｜KU－NI－SU
d．$|\mathrm{DI}-\mathrm{DE}-\mathrm{RU}| \mathrm{QE}$
e．RA－U

## II＇985l




4 －（可贸尔）－［o
s 》 $A_{\text {A］}}$
Image 98．Standardised inscription of HT 95b，obtained from GORILA 1

3．98．1 Common Semitic／Middle Egyptian

| A－D |
| :---: |
| $\mathbf{S - R}$ |

Table 98．1．1．Combination of clusters from HT 95b（a）

## D－M

Table 98．1．2．Combination of clusters from HT 95b（b）

|  | M－N－T |
| :---: | :---: |
| M－N | N－T |

Table 98．1．3．Combination of clusters from HT 95b（b）－（c）

| K－N－S |  |
| :---: | :---: |
| K－N | N－S |

Table 98．1．4．Combination of clusters from HT 95b ©

| D-D-R |  |  |
| :---: | :---: | :---: |
| D-D | D-R |  |

Table 98.1.5. Combination of clusters from HT 95b (d)

| Q-R-U |  |
| :---: | :---: |
| Q-R | R-U |

Table 98.1.6. Combination of clusters from HT 95b (d)-(e)
3.98.2 Hittite

| A-DU |
| :---: |
| SA-RU |

Table 98.2.1. Combination of clusters from HT 95b (a)

## DA-ME

Table 98.2.2. Combination of clusters from HT 95b (b)

| MI-NU-TE |  |  |
| :---: | :---: | :---: |
| MI-NU | NU-TE |  |

Table 98.2.3. Combination of clusters from HT 95b (b)-(c)

| KU-NI-SU |  |
| :---: | :---: |
| KU-NI NI-SU |  |

Table 98.2.4. Combination of clusters from HT 95b (c)

| DI-DE-RU |  |
| :---: | :---: |
| DI-DE | DE-RU |

Table 98.2.5. Combination of clusters from HT 95b (d)

|  | QE-RA-U |
| :---: | :---: |
| QE-RA | RA-U |

Table 98.2.6. Combination of clusters from HT 95b (d)-(e)

### 3.99 Artefact HT 96a

Transcription of Linear A characters on artefact HT 96a yielded strings under five distinct rows of clusters:
a. I-TI-TI-KU-NI $\mid$ A-PA
b. RA-NE | A * 123 TE | SI-MI
c. TA $\mid$ RU-SA $\mid$
d. PI-TA-RA |
e. $\mid$ KU-MA-RO |

## IIT 96a



Image 99. Standardised inscription of HT 96a, obtained from GORILA 1

### 3.99.1 Common Semitic / Middle Egyptian

| I-T-T-K-N |  |  |
| :---: | :---: | :---: |
| I-T-T-K | I-T-T | I-T |
| T-T-K-N | T-T-K | T-T |
| T-K-N | T-K | K-N |

Table 99.1.1. Combination of clusters from HT 96a (a)

| A-P-R-N |  |  |
| :---: | :---: | :---: |
| A-P-R | A-P | P-R |
| P-R-N | R-N |  |

Table 99.1.2. Combination of clusters from HT 96a (a)-(b)

| S-M-T |  |
| :---: | :---: | :---: |
| S-M | M-T |

Table 99.1.3. Combination of clusters from HT 96a (b)-(c)

## S-R

Table 99.1.4. Combination of clusters from HT 96a (c)

| P-T-R |  |
| :---: | :---: |
| P-T | T-R |

Table 99.1.5. Combination of clusters from HT 96a (d)

| K-M-R |  |
| :---: | :---: |
| K-M | M-R |

Table 99.1.6. Combination of clusters from HT 96a (e)
3.99.2 Hittite

|  | I-TI-TI-KU-NI |  |
| :---: | :---: | :---: |
| I-TI-TI-KU | I-TI-TI | I-TI |


| TI-TI-KU-NI | TI-TI-KU | TI-TI |
| :---: | :---: | :---: |
| TI-KU-NI | TI-KU | KU-NI |

Table 99.2.1. Combination of clusters from HT 96a (a)

| A-PA-RA-NE |  |  |
| :---: | :---: | :---: |
| A-PA-RA | A-PA | PA-RA |
| PA-RA-NE | RA-NE |  |

Table 99.2.2. Combination of clusters from HT 96a (a)-(b)

| SI-MI-TA |  |  |
| :---: | :---: | :---: |
| SI-MI | MI-TA |  |

Table 99.2.3. Combination of clusters from HT 96a (b)-(c)

## RU-SA

Table 99.2.4. Combination of clusters from HT 96a (c)

| PI-TA-RA |  |
| :---: | :---: |
| PI-TA | TA-RA |

Table 99.2.5. Combination of clusters from HT 96a (d)

| KU-MA-RO |  |  |
| :---: | :---: | :---: |
| KU-MA | MA-RO |  |

Table 99.2.6. Combination of clusters from HT 96a (e)

### 3.100 Artefact HT 96b

Transcription of Linear A characters on artefact HT 96b yielded strings under two distinct rows of clusters:
a. A-PA-RA-NE | QA *118
b. RA-RE

HT 96b


Image 100. Standardised inscription of HT 96b, obtained from GORILA 1

### 3.100.1 Common Semitic / Middle Egyptian

## A-P-R-N

| A-P-R | A-P | P-R |
| :---: | :---: | :---: |
| P-R-N | R-N |  |

Table 100.1.1. Combination of clusters from HT 96b (a)

## R-R

Table 100.1.2. Combination of clusters from HT 96b (b)
3.100.2 Hittite

| A-PA-RA-NE |  |  |
| :---: | :---: | :---: |
| A-PA-RA | A-PA | PA-RA |
| PA-RA-NE | RA-NE |  |

Table 100.2.1. Combination of clusters from HT 96b (a)

## RA-RE

Table 100.2.2. Combination of clusters from HT 96b (b)

### 3.101 Artefact HT 97a

Transcription of Linear A characters on artefact HT 97a yielded strings under four distinct rows of clusters:
a. KA-RU
b. KA-NU-TI $\mid$ PA-I-TO $\mid$
c. $\mid$ NA-TI $|M A-D I|$
d. |TA-TI

$$
\begin{aligned}
& \text { 9za }
\end{aligned}
$$

$$
\begin{aligned}
& 2=-1 \\
& { }_{\cdot 3}(\oplus H \cap)={ }_{i \prime}(\neq \psi \mp)!!
\end{aligned}
$$

$$
\begin{aligned}
& \text { 6 " }{ }^{2} \text {-[] ! ! [ }[ \\
& \text { ] } \dagger \text { ! ! }
\end{aligned}
$$

Image 101. Standardised inscription of HT 97a, obtained from GORILA 1

### 3.101.1 Common Semitic / Middle Egyptian

Table 101.1.1. Combination of clusters from HT 97a (a)

| K-N-T |  |  |
| :---: | :---: | :---: |
| K-N | P-I-T | N-T |
| P-I |  | I-T |

Table 101.1.2. Combination of clusters from HT 97a (b)

| $\mathbf{N}-\mathbf{T}$ |
| :---: |
| $\mathbf{M}-\mathbf{D}$ |

Table 101.1.3. Combination of clusters from HT 97a (c)

## T-T

Table 101.1.4. Combination of clusters from HT 97a (d)

### 3.101.2 Hittite

## KA-RU

Table 101.2.1. Combination of clusters from HT 97a (a)

| KA-NU-TI |  |  |
| :---: | :---: | :---: |
| KA-NU |  | NU-TI |
| PA-I | PA-TO |  |
| PA-IO |  |  |

Table 101.2.2. Combination of clusters from HT 97a (b)

| NA-TI |
| :---: |
| MA-DI |

Table 101.2.3. Combination of clusters from HT 97a (c)

## TA-TI

Table 101.2.4. Combination of clusters from HT 97a (d)

### 3.102 Artefact HT 97b

Transcription of Linear A characters on artefact HT 97b yielded a string under one distinct row of cluster:
a. SA-RA

ITT :9Z

$$
(y y)
$$

Image 102. Standardised inscription of HT 97b, obtained from GORILA 1

### 3.102.1 Common Semitic / Middle Egyptian

Table 102.1.1. Combination of clusters from HT 97b (a)

## SA－RA

Table 102．2．1．Combination of clusters from HT 97b（a）

## 3．103 Artefact HT 98a

Transcription of Linear A characters on artefact HT 98a yielded strings under three distinct rows of clusters：
a． $\mid$ TA－NA－TI $\mid$ DI
b．RE－DI－NA｜TE＊301｜
c．RO－KE｜KA－RI＊310 I

## ITT SKit

$$
\begin{aligned}
& 2 \dot{\zeta} \cdot\left(\square \bar{i} \wedge_{л}[\bar{\prime}\right. \\
& \left.{ }_{3} \Psi: \frac{1 \pi}{1} \bar{i}\right]<(\text { 丰 S }) \text { ) } \\
& .4 \text { (米 }<\text { ( } \oplus \text { Z (G) ! ! ! } \\
& .5
\end{aligned}
$$

Image 103．Standardised inscription of HT 98a，obtained from GORILA 1

3．103．1 Common Semitic／Middle Egyptian

| T－N－T |  |
| :---: | :---: |
| T－N | N－T |

Table 103．1．1．Combination of clusters from HT 98a（a）

| D－R－D－N |  |  |
| :---: | :---: | :---: |
| D－R－D | D－R | R－D |
| R－D－N | D－N |  |

Table 103．1．2．Combination of clusters from HT 98a（a）－（b）

| R－K |
| :--- |
| $\mathbf{K - R}$ |

Table 103．1．3．Combination of clusters from HT 98a（c）

## 3．103．2 Hittite

| TA－NA－TI |  |
| :---: | :---: |
| TA－NA NA－TI |  |

Table 103．2．1．Combination of clusters from HT 98a（a）

| DI-RE-DI-NA |  |  |
| :---: | :---: | :---: |
| DI-RE-DI | DI-RE | RE-DI |
| RE-DI-NA | DI-NA |  |

Table 103.2.2. Combination of clusters from HT 98a (a)-(b)

| RO-KE |
| :---: |
| KA-RI |

Table 103.2.3. Combination of clusters from HT 98a (c)

### 3.104 Artefact HT 98b

Transcription of Linear A characters on artefact HT 98b yielded a string under one distinct row of cluster:
a. DA-RU-NE-TE ITT (R)


Image 104. Standardised inscription of HT 98b, obtained from GORILA 1

### 3.104.1 Common Semitic / Middle Egyptian

| D-R-N-T |  |  |
| :---: | :---: | :---: |
| D-R-N | D-R | R-N |
| R-N-T | N-T |  |

Table 104.1.1. Combination of clusters from HT 98b (a)

### 3.104.2 Hittite

| DA-RU-NE-TE |  |  |
| :---: | :---: | :---: |
| DA-RU-NE | DA-RU | RU-NE |
| RU-NE-TE | NE-TE |  |

Table 104.2.1. Combination of clusters from HT 98b (a)

### 3.105 Artefact HT 99a

Transcription of Linear A characters on artefact HT 99a yielded strings under one distinct row of clusters:
a. A-DU |SA-RA *303

#  2*! ! 斿1人 <br> . 3 <br> Juest <br> $.4-5$ 

Image 105. Standardised inscription of HT 99a, obtained from GORILA 1
3.105.1 Common Semitic / Middle Egyptian

| A-D |
| :--- |
| S-R |

Table 105.1.1. Combination of clusters from HT 99a (a)

### 3.105.2 Hittite

| A-DU |
| :---: |
| SA-RA |

Table 105.2.1. Combination of clusters from HT 99a (a)

### 3.106 Artefact HT 99b

Transcription of Linear A characters on artefact HT 99b yielded strings under two distinct rows of clusters:
a. DA-SI *118|
b. ZU-DU|RU-MA-TA

ITT (9))

.3


4-5 vacant $[$
Image 106. Standardised inscription of HT 99b, obtained from GORILA 1

### 3.106.1 Common Semitic / Middle Egyptian

## D-S

Table 106.1.1. Combination of clusters from HT 99b (a)

| Z-D |  |  |
| :---: | :---: | :---: |
| R-M-T |  |  |
| R-M | M-T |  |

Table 106.1.2. Combination of clusters from HT 99b (b)

### 3.106.2 Hittite

## DA-SI

Table 106.2.1. Combination of clusters from HT 99b (a)

| ZU-DU |  |
| :---: | :---: |
| RU-MA-TA |  |
| RU-MA | MA-TA |

Table 106.2.2. Combination of clusters from HT 99b (b)

### 3.107 Artefact HT 100

Transcription of Linear A characters on artefact HT 100 yielded strings under two distinct rows of clusters:
a. $\mathrm{KU}-\mathrm{RO} \mid$
b. SA-RA *303


Image 107. Standardised inscription of HT 100, obtained from GORILA 1
3.107.1 Common Semitic / Middle Egyptian

## K-R

Table 107.1.1. Combination of clusters from HT 100 (a)

## S-R

Table 107.1.2. Combination of clusters from HT 100 (b)

## KU-RO

Table 107.2.1. Combination of clusters from HT 100 (a)

## SA-RA

Table 107.2.2. Combination of clusters from HT 100 (b)

### 3.108 Artefact HT 101

Transcription of Linear A characters on artefact HT 101 yielded strings under three distinct rows of clusters:
a. $\mathrm{ZU} * 22 \mathrm{DI} * 578$ |
b. SA-RA |
c. KU-PA|


Image 108. Standardised inscription of HT 101, obtained from GORILA 1

### 3.108.1 Common Semitic / Middle Egyptian

## S-R

Table 108.1.1. Combination of clusters from HT 101 (b)
$\square$
K-P
Table 108.1.2. Combination of clusters from HT 101 (c)

## SA-RA

Table 108.2.1. Combination of clusters from HT 101 (b)

## KU-PA

Table 108.2.2. Combination of clusters from HT 101 (c)

### 3.109 Artefact HT 102

Transcription of Linear A characters on artefact HT 102 yielded strings under five distinct rows of clusters:
a. KA-PA-SA-RA |
b. |PA-NI *574|
c. DI-RI-NA|MA
d. $\mathrm{ZU}|\mathrm{I}-\mathrm{KA}|$
e. KU-RO

Image 109. Standardised inscription of HT 102, obtained from GORILA 1
3.109.1 Common Semitic / Middle Egyptian

| K-P-S-R |  |  |
| :---: | :---: | :---: |
| K-P-S | K-P | P-S |
| P-S-R | S-R |  |

Table 109.1.1. Combination of clusters from HT 102 (a)

## P-N

Table 109.1.2. Combination of clusters from HT 102 (b)

| D-R-N |  |
| :---: | :---: |
| D-R | R-N |

Table 109.1.3. Combination of clusters from HT 102 (c)

## M-Z

Table 109.1.4. Combination of clusters from HT 102 (c)-(d)

## I-K

Table 109.1.5. Combination of clusters from HT 102 (d)

## K-R

Table 109.1.6. Combination of clusters from HT 102 (e)
3.109.2 Hittite

| KA-PA-SA-RA |  |  |
| :---: | :---: | :---: |
| KA-PA-SA | KA-PA | PA-SA |
| PA-SA-RA | SA-RA |  |

Table 109.2.1. Combination of clusters from HT 102 (a)

## PA-NI

Table 109.2.2. Combination of clusters from HT 102 (b)

| DI-RI-NA |  |
| :---: | :---: |
| DI-RI | RI-NA |

Table 109.2.3. Combination of clusters from HT 102 (c)

## MA-ZU

Table 109.2.4. Combination of clusters from HT 102 (c)-(d)

## I-KA

Table 109.2.5. Combination of clusters from HT 102 (d)

## KU-RO

Table 109.2.6. Combination of clusters from HT 102 (e)

### 3.110 Artefact HT 103

Transcription of Linear A characters on artefact HT 103 yielded strings under four distinct rows of clusters:
a. U-TA|
b. PA-DA-KU-SE-NE
c. DA-KU-NA |DA-KU-SE
d. NE|KI-RA
$1(f) \cdot * *==$

$3 \quad \operatorname{lon}_{11}\llcorner\square-!$
$4(1-3 i) \cdot[1-3 \mu$

Image 110. Standardised inscription of HT 103, obtained from GORILA 1

### 3.110.1 Common Semitic / Middle Egyptian

## U-T

Table 110.1.1. Combination of clusters from HT 103 (a)

| P-D-K-S-N |  |  |
| :---: | :---: | :---: |
| P-D-K-S | P-D-K | P-D |
| D-K-S-N | D-K-S | D-K |
| K-S-N | K-S | S-N |

Table 110.1.2. Combination of clusters from HT 103 (b)

| D-K-N |  |
| :---: | :---: |
| D-K | K-N |

Table 110.1.3. Combination of clusters from HT 103 (c)

| D-K-S-N |  |  |
| :--- | :--- | :--- |
| D-K-S | D-K | K-S |
| K-S-N | S-N |  |

Table 110.1.4. Combination of clusters from HT 103 (c)-(d)

## K-R

Table 110.1.5. Combination of clusters from HT 103 (d)

### 3.110.2 Hittite

## U-TA

Table 110.2.1. Combination of clusters from HT 103 (a)

| PA-DA-KU-SE-NE |  |  |
| :---: | :---: | :---: |
| PA-DA-KU-SE | PA-DA-KU | PA-DA |
| DA-KU-SE-NE | DA-KU-SE | DA-KU |
| KU-SE-NE | KU-SE | SE-NE |

Table 110.2.2. Combination of clusters from HT 103 (b)

| DA-KU-NA |  |
| :---: | :---: |
| DA-KU | KU-NA |

Table 110.2.3. Combination of clusters from HT 103 (c)

| DA-KU-SE-NE |  |  |
| :---: | :---: | :---: |
| DA-KU-SE | DA-KU | KU-SE |
| KU-SE-NE | SE-NE |  |

Table 110.2.4. Combination of clusters from HT 103 (c)-(d)

## KI-RA

Table 110.2.5. Combination of clusters from HT 103 (d)

### 3.111 Artefact HT 104

Transcription of Linear A characters on artefact HT 104 yielded strings under five distinct rows of clusters:
a. TA-PA|TE-RO|DA-KU
b. SE-NE-TI|I
c. DU-TI|PA-DA
d. SU-TI|
e. KU-RO


Image 111. Standardised inscription of HT 104, obtained from GORILA 1
3.111.1 Common Semitic / Middle Egyptian

| T-P |
| :---: |
| T-R |

Table 111.1.1. Combination of clusters from HT 104 (a)

| D-K-S-N-T |  |  |
| :---: | :---: | :---: |
| D-K-S-N | D-K-S | D-K |
| K-S-N-T | K-S-N | K-S |
| S-N-T | S-N | N-T |

Table 111.1.2. Combination of clusters from HT 104 (a)-(b)

| I-D-T |  |
| :---: | :---: |
| I-D | D-T |

Table 111.1.3. Combination of clusters from HT 104 (b)-(c)

| P-D-S-T |  |  |
| :---: | :---: | :---: |
| P-D-S | P-D | D-S |
| D-S-T | S-T |  |

Table 111.1.4. Combination of clusters from HT 104 (c)-(d)

## K-R

Table 111.1.5. Combination of clusters from HT 104 (e)
3.111.2 Hittite

| TA-PA |
| :---: |
| TE-RO |

Table 111.2.1. Combination of clusters from HT 104 (a)

| DA-KU-SE-NE-TI |  |  |
| :---: | :---: | :---: |
| DA-KU-SE-NE | DA-KU-SE | DA-KU |
| KU-SE-NE-TI | KU-SE-NE | KU-SE |
| SE-NE-TI | SE-NE | NE-TI |

Table 111.2.2. Combination of clusters from HT 104 (a)-(b)

|  | I-DU-TI |
| :---: | :--- |
| I-DU | DU-TI |

Table 111.2.3. Combination of clusters from HT 104 (b)-(c)

| PA-DA-SU-TI |  |  |  |
| :---: | :---: | :---: | :---: |
| PA-DA-SU | PA-DA | DA-SU |  |
| DA-SU-TI | SU-TI |  |  |

Table 111.2.4. Combination of clusters from HT 104 (c)-(d)

## KU-RO

Table 111.2.5. Combination of clusters from HT 104 (e)

### 3.112 Artefact HT 105

Transcription of Linear A characters on artefact HT 105 yielded strings under two distinct rows of clusters:
a. KA-PA |
b. SA-RA


Image 112. Standardised inscription of HT 105, obtained from GORILA 1

### 3.112.1 Common Semitic / Middle Egyptian

## K-P

Table 112.1.1. Combination of clusters from HT 105 (a)

## S-R

Table 112.1.2. Combination of clusters from HT 105 (b)
3.112.2 Hittite

## KA-PA

Table 112.2.1. Combination of clusters from HT 105 (a)

## SA-RA

Table 112.2.2. Combination of clusters from HT 105 (b)

### 3.113 Artefact HT 106

Transcription of Linear A characters on artefact HT 106 yielded a string under one distinct row of cluster:
a. MI-NU-TE *303|

## IT 106




3 ト-[•] "川!
$4411![$
Image 113. Standardised inscription of HT 106, obtained from GORILA 1

### 3.113.1 Common Semitic / Middle Egyptian

| M-N-T |  |
| :---: | :---: |
| M-N | N-T |

Table 113.1.1. Combination of clusters from HT 106 (a)
3.113.2 Hittite

| MI-NU-TE |  |
| :---: | :---: |
| MI-NU | NU-TE |

Table 113.2.1. Combination of clusters from HT 106 (a)

### 3.114 Artefact HT 108

Transcription of Linear A characters on artefact HT 108 yielded strings under three distinct rows of clusters:
a. KI-RE-TA-NA |
b. DI-NA-RO |DU-SU-NI
c. |RA-TI|

HIT NOS

Image 114. Standardised inscription of HT 108, obtained from GORILA 1
3.114.1 Common Semitic / Middle Egyptian

| K-R-T-N |  |  |
| :---: | :---: | :---: |
| K-R-T | K-R | R-T |
| R-T-N | T-N |  |

Table 114.1.1. Combination of clusters from HT 108 (a)

| D-N-R |  |  |
| :---: | :---: | :---: |
| D-N | N-R |  |
| D-S |  | N-N |
| D |  |  |

Table 114.1.2. Combination of clusters from HT 108 (b)

## R-T

Table 114.1.3. Combination of clusters from HT 108 (c)

### 3.114.2 Hittite

| KI-RE-TA-NA |  |  |
| :---: | :---: | :---: |
| KI-RE-TA | KI-RE | RE-TA |
| RE-TA-NA | TA-NA |  |

Table 114.2.1. Combination of clusters from HT 108 (a)

| DI-NA-RO |  |  |
| :---: | :---: | :---: |
| DI-NA |  | NA-RO |
| DU-SU | DU-SU-NI |  |
| DU-NI |  |  |

Table 114.2.2. Combination of clusters from HT 108 (b)

## RA-TI

Table 114.2.3. Combination of clusters from HT 108 (c)

### 3.115 Artefact HT 109

Transcription of Linear A characters on artefact HT 109 yielded strings under two distinct rows of clusters:
a. |KU-RO
b. A-RA-JU

ITI MOA

$$
\begin{aligned}
& \text { Sup. mut. } \\
& 1 \quad \text { ] } \|_{\|}^{\|} \text {. } \\
& \text { - ए. } \\
& \left.{ }_{3}\right]\left[(3+7) 0={ }^{2}+1,1\right. \\
& 4 \mathrm{f}[\mathrm{~T} 2 \mathrm{~J} H \mathrm{H} 0=\mathrm{M}
\end{aligned}
$$

Image 115. Standardised inscription of HT 109, obtained from GORILA 1
3.115.1 Common Semitic / Middle Egyptian

K-R
Table 115.1.1. Combination of clusters from HT 109 (a)

| A-R-J |  |
| :---: | :---: |
| A-R | R-J |

Table 115.1.2. Combination of clusters from HT 109 (b)

### 3.115.2 Hittite

## KU-RO

Table 115.2.1. Combination of clusters from HT 109 (a)

| A-RA-JU |  |
| :---: | :---: |
| A-RA | RA-JU |

Table 115.2.2. Combination of clusters from HT 109 (b)

### 3.116 Artefact HT 110a

Transcription of Linear A characters on artefact HT 110a yielded strings under three distinct rows of clusters:
a. SI-DU *34 KU-MI
b. $|K U-P A|$
c. KU-RO

Image 116. Standardised inscription of HT 110a, obtained from GORILA 1
3.116.1 Common Semitic / Middle Egyptian

| S-D |
| :---: |
| K-M |

Table 116.1.1. Combination of clusters from HT 110a (a)

## K-P

Table 116.1.2. Combination of clusters from HT 110a (b)

## K-R

Table 116.1.3. Combination of clusters from HT 110a (c)
3.116.2 Hittite

| SI-DU |
| :---: |
| KU-MI |

Table 116.2.1. Combination of clusters from HT 110a (a)

## KU-PA

Table 116.2.2. Combination of clusters from HT 110a (b)

## KU-RO

Table 116.2.3. Combination of clusters from HT 110a (c)

### 3.117 Artefact HT 111a

Transcription of Linear A characters on artefact HT 111a yielded strings under two distinct rows of clusters:
a. QE-KA |QA-SA $\mid$
b. $\mid$ QA-QA-RU $\mid$

Image 117. Standardised inscription of HT 111a, obtained from GORILA 1
3.117.1 Common Semitic / Middle Egyptian

| Q-K |
| :---: |
| $\mathbf{Q - S}$ |

Table 117.1.1. Combination of clusters from HT 111a (a)

| Q-Q-R |  |  |
| :---: | :---: | :---: |
| Q-Q | Q-R |  |

Table 117.1.2. Combination of clusters from HT 111a (b)
3.117.2 Hittite

| QE-KA |
| :---: |
| QA-SA |

Table 117.2.1. Combination of clusters from HT 111a (a)

| QA-QA-RU |  |  |
| :---: | :---: | :---: |
| QA-QA | QA-RU |  |

Table 117.2.2. Combination of clusters from HT 111a (b)

### 3.118 Artefact HT 111b

Transcription of Linear A characters on artefact HT 111b yielded a string under one distinct row of cluster:
a. SA-DI|

IIT HHI)


Image 118. Standardised inscription of HT 111b, obtained from GORILA 1

### 3.118.1 Common Semitic / Middle Egyptian

S-D
Table 118.1.1. Combination of clusters from HT 111b (a)
3.118.2 Hittite

## SA-DI

Table 118.2.1. Combination of clusters from HT 111b (a)

### 3.119 Artefact HT 112a

Transcription of Linear A characters on artefact HT 112a yielded a string under one distinct row of cluster:
a. TU-PA|

HT HMa
1 fic
2 ( ( $\ddagger$ ) [
.3

Image 119. Standardised inscription of HT 112a, obtained from GORILA 1

### 3.119.1 Common Semitic / Middle Egyptian

## T-P

Table 119.1.1. Combination of clusters from HT 112a (a)

### 3.119.2 Hittite

## TU-PA

Table 119.2.1. Combination of clusters from HT 112a (a)

### 3.120 Artefact HT 113

Transcription of Linear A characters on artefact HT 113 yielded strings under two distinct rows of clusters:
a. RA-RI-DE
b. WI-SA |

## IP $\mathbf{H 5}$



Image 120. Standardised inscription of HT 113, obtained from GORILA 1
3.120.1 Common Semitic / Middle Egyptian

| R-R-D |  |
| :---: | :---: |
| R-R | R-D |

Table 120.1.1. Combination of clusters from HT 113 (a)

## W-S

Table 120.1.2. Combination of clusters from HT 113 (b)
3.120.2 Hittite

| RA-RI-DE |  |
| :---: | :---: |
| RA-RI | RI-DE |

Table 120.2.1. Combination of clusters from HT 113 (a)

WI-SA
Table 120.2.2. Combination of clusters from HT 113 (b)

### 3.121 Artefact HT 114a

Transcription of Linear A characters on artefact HT 114a yielded a string under two distinct rows of cluster:
a. KI-RI-TA-SA
b. RA

HT T HAsa

2 1)] ${ }^{\prime}$ - 7 !'.'
3


5
vacate
Image 121. Standardised inscription of HT 114a, obtained from GORILA 1
3.121.1 Common Semitic / Middle Egyptian

| K-R-T-S-R |  |  |
| :---: | :---: | :---: |
| K-R-T-S | K-R-T | K-R |
| R-T-S-R | R-T-S | R-T |
| T-S-R | T-S | S-R |

Table 121.1.1. Combination of clusters from HT 114a (a)-(b)
3.121.2 Hittite

| KI-RI-TA-SA-RA |  |  |
| :---: | :---: | :---: |
| KI-RI-TA-SA | KI-RI-TA | KI-RI |
| RI-TA-SA-RA | RI-TA-SA | RI-TA |
| TA-SA-RA | TA-SA | SA-RA |

Table 121.2.1. Combination of clusters from HT 114a (a)-(b)

### 3.122 Artefact HT 115a

Transcription of Linear A characters on artefact HT 115a yielded strings under six distinct rows of clusters:
a. *47 NU-RA-JA | RI-TA-MA
b. NU-WI|[[*301 U-RA]] NA-QI
c. NE-MI-NA | SE-KU-TU |
d. PA-RA-NE | A-SE-JA |
e. KA-PO-RU |
f. [[RI-SU-MA |]]


Image 122. Standardised inscription of HT 115a, obtained from GORILA 1

### 3.122.1 Common Semitic / Middle Egyptian

| N-R-J |  |
| :---: | :---: |
| N-R | R-J |

Table 122.1.1. Combination of clusters from HT 115a (a)

| R-T-M-N-W |  |  |
| :---: | :---: | :---: |
| R-T-M-N | R-T-M | R-T |
| T-M-N-W | T-M-N | T-M |
| M-N-W | M-N | N-W |

Table 122.1.2. Combination of clusters from HT 115a (a)-(b)

## U-R

Table 122.1.3. Combination of clusters from HT 115a (b)

| N-Q-N-M-N |  |  |
| :---: | :---: | :---: |
| N-Q-N-M | N-Q-N | N-Q |
| Q-N-M-N | Q-N-M | Q-N |
| N-M-N | N-M | M-N |

Table 122.1.4. Combination of clusters from HT 115a (b)-(c)

| S-K-T |  |
| :---: | :---: |
| S-K | K-T |

Table 122.1.5. Combination of clusters from HT 115a (c)

| P-R-N |  |  |
| :---: | :---: | :---: |
| P-R | R-N |  |
| A-S-J |  |  |
| A-S | S-J |  |

Table 122.1.6. Combination of clusters from HT 115a (d)

| K-P-R |  |
| :---: | :---: |
| K-P | P-R |

Table 122.1.7. Combination of clusters from HT 115a (e)

| R-S-M |  |
| :---: | :---: |
| R-S | S-M |

Table 122.1.8. Combination of clusters from HT 115a (f)

### 3.122.2 Hittite

| NU-RA-JA |  |
| :---: | :---: |
| NU-RA | RA-JA |

Table 122.2.1. Combination of clusters from HT 115a (a)

| RI-TA-MA-NU-WI |  |  |  |
| :---: | :---: | :---: | :---: |
| RI-TA-MA-NU | RI-TA-MA | RI-TA |  |
| TA-MA-NU-WI | TA-MA-NU | TA-MA |  |
| MA-NU-WI | MA-NU | NU-WI |  |

Table 122.2.2. Combination of clusters from HT 115a (a)-(b)

## U-RA

Table 122.2.3. Combination of clusters from HT 115a (b)

| NA-QI-NE-MI-NA |  |  |  |
| :---: | :---: | :---: | :---: |
| NA-QI-NE-MI | NA-QI-NE | NA-QI |  |
| QI-NE-MI-NA | QI-NE-MI | QI-NE |  |
| NE-MI-NA | NE-MI | MI-NA |  |

Table 122.2.4. Combination of clusters from HT 115a (b)-(c)

|  | SE-KU-TU |
| :---: | :---: |
| SE-KU | KU-TU |

Table 122.2.5. Combination of clusters from HT 115a (c)

| PA-RA-NE |  |  |
| :---: | :---: | :---: |
| PA-RA |  | RA-NE |
| A-SE | A-SE-JA |  |
| A-SA |  |  |

Table 122.2.6. Combination of clusters from HT 115a (d)

| KA-PO-RU |  |
| :---: | :---: |
| KA-PO PO-RU |  |

Table 122.2.7. Combination of clusters from HT 115a (e)

| RI-SU-MA |  |
| :---: | :---: |
| RI-SU | SU-MA |

Table 122.2.8. Combination of clusters from HT 115a (f)

### 3.123 Artefact HT 115b

Transcription of Linear A characters on artefact HT 115b yielded strings under four distinct rows of clusters:
a. $\mid$ PA-RA-NE $\mid$
b. TI-NU-JA |NU-WI|DU-PA-NA $\mid$
c. KU-RU-MA |*306 TU-JA |
d. A-I $|\mathrm{KU}-\mathrm{TA}|$

```
1 l%:(t山王)L
```





```
S-8 vacant
```

Image 123. Standardised inscription of HT 115b, obtained from GORILA 1

### 3.123.1 Common Semitic / Middle Egyptian

| P-R-N |  |
| :---: | :---: |
| P-R | R-N |

Table 123.1.1. Combination of clusters from HT 115b (a)

| T-N-J |  |  |
| :---: | :---: | :---: |
| T-N |  | N-J |
|  | N-W |  |
| D-P-N | P-N |  |
| D-P |  |  |

Table 123.1.2. Combination of clusters from HT 115b (b)

| K-R-M |  |  |
| :---: | :---: | :---: |
| K-R | R-M |  |
|  | T-J |  |

Table 123.1.3. Combination of clusters from HT 115b I

| A-I |
| :---: |
| K-T |

Table 123.1.4. Combination of clusters from HT 115b (d)

### 3.123.2 Hittite

| PA-RA-NE |  |
| :---: | :---: |
| PA-RA | RA-NE |

Table 123.2.1. Combination of clusters from HT 115b (a)

| TI-NU-JA |  |  |
| :---: | :---: | :---: |
| TI-NU |  | NU-JA |
| NU-WI |  |  |
| DU-PA-NA |  |  |
| DU-PA |  | PA-NA |

Table 123.2.2. Combination of clusters from HT 115b (b)

| KU－RU－MA |  |  |
| :---: | :---: | :---: |
| KU－RU | RU－MA |  |
| TU－JA |  |  |

Table 123．2．3．Combination of clusters from HT 115b（c）

| A－I |
| :---: |
| KU－TA |

Table 123．2．4．Combination of clusters from HT 115b（d）

## 3．124 Artefact HT 116a

Transcription of Linear A characters on artefact HT 116a yielded strings under five distinct rows of clusters：
a．U－TA－RO｜KU－PA－JA｜
b．PU－RA
c． $\mathrm{PI} * 34 \mathrm{TE} \mid$
d．SI－KI
e．NE｜QA－NU－MA
HT 416a

$$
\begin{aligned}
& 2-i!1(\Omega 77) \cdot \bar{\phi}=\overline{7 \pi}: 11
\end{aligned}
$$

$$
\begin{aligned}
& 4 \text { M } \\
& 5 \text { 名:! 㘶, 要! 仙白 }
\end{aligned}
$$

$$
\begin{aligned}
& 7 \quad \bar{\phi}=\prod_{1}
\end{aligned}
$$

Image 124．Standardised inscription of HT 116a，obtained from GORILA 1

## 3．124．1 Common Semitic／Middle Egyptian

| U－T－R |  |  |
| :---: | :---: | :---: |
| U－T |  | T－R |
| K－P－J |  |  |
| K－J |  |  |

Table 124．1．1．Combination of clusters from HT 116a（a）

## P－R

Table 124．1．2．Combination of clusters from HT 116a（b）

## S-K

Table 124.1.3. Combination of clusters from HT 116a (d)

|  | Q-N |
| :---: | :---: |
| Q-N | N-M |

Table 124.1.4. Combination of clusters from HT 116a (e)

### 3.124.2 Hittite

| U-TA-RO |  |  |
| :---: | :---: | :---: |
| U-TA | TA-RO |  |
| KU-PA |  |  |
| KU-PA-JA |  | PA-JA |

Table 124.2.1. Combination of clusters from HT 116a (a)

## PU-RA

Table 124.2.2. Combination of clusters from HT 116a (b)

## SI-KI

Table 124.2.3. Combination of clusters from HT 116a (d)

| QA-NU-MA |  |  |
| :---: | :---: | :---: |
| QA-NU | NU-MA |  |

Table 124.2.4. Combination of clusters from HT 116a (e)

### 3.125 Artefact HT 116b

Transcription of Linear A characters on artefact HT 116b yielded a string under one distinct row of cluster:
a. KU-RO

IFI H6b

$$
\begin{aligned}
& 1(子+) \Phi \propto[\quad] \uparrow-\frac{!!!}{i!} \\
& 2 \Rightarrow-{ }_{i!\prime}^{\prime \prime \prime} \\
& 3-7 \quad \text { nacant }
\end{aligned}
$$

Image 125. Standardised inscription of HT 116b, obtained from GORILA 1

### 3.125.1 Common Semitic / Middle Egyptian

K-R

Table 125.1.1. Combination of clusters from HT 116b (a)

## KU-RO

Table 125.2.1. Combination of clusters from HT 116b (a)

### 3.126 Artefact HT 117a

Transcription of Linear A characters on artefact HT 117a yielded strings under nine distinct rows of clusters:
a. MA-KA-RI-TE | KI-RO|U-MI
b. NA-SI | U-SU | MI-TU | KU
c. RA-MU |MA-RU | KU-PA-NU | TU
d. JU-MA | U-DI-MI|MI-RU-TA
e. RA-RE |TE-JA-RA |NA-DA-RE |
f. KU-RO |
g. SA-TA | KU-KU-DA-RA | KO-SA-I
h. TI |DA-MI-NU | DA-NE-KU
i. TI $\mid$ KI-DA-RO


Image 126. Standardised inscription of HT 117a, obtained from GORILA 1
3.126.1 Common Semitic / Middle Egyptian

| M-K-R-T |  |  |
| :---: | :---: | :---: |
| M-K-R | M-K | K-R |
| K-R-T | R-T |  |
| K-R |  |  |

Table 126.1.1. Combination of clusters from HT 117a (a)

## U-M-N-S

| U-M-N | U-M | M-N |
| :---: | :---: | :---: |
| M-N-S | N-S |  |

Table 126.1.2. Combination of clusters from HT 117a (a)-(b)

| U-S |
| :---: |
| $\mathbf{M - T}$ |

Table 126.1.3. Combination of clusters from HT 117a (b)

| K-R-M |  |
| :---: | :---: |
| K-R | R-M |

Table 126.1.4. Combination of clusters from HT 117a (b)-(c)

| $\mathbf{M - R}$ |  |  |
| :---: | :---: | :---: |
| $\mathbf{K - P}-\mathbf{N}$ |  |  |
| K-P | P-N |  |

Table 126.1.5. Combination of clusters from HT 117a (c)

| T-J-M |  |
| :---: | :---: |
| T-J | J-M |

Table 126.1.6. Combination of clusters from HT 117a (c)-(d)

|  | U-D-M |
| :---: | :---: | :---: |
| U-D | D-M |

Table 126.1.7. Combination of clusters from HT 117a (d)

| M-R-T-R-R |  |  |
| :---: | :---: | :---: |
| M-R-T-R | M-R-T | M-R |
| R-T-R-R | R-T-R | R-T |
| T-R-R | T-R | R-R |

Table 126.1.8. Combination of clusters from HT 117a (d)-(e)

| T-J-R |  |  |
| :---: | :---: | :---: |
| T-J |  | J-R |
| N-D-R | D-R |  |
| N-D |  |  |

Table 126.1.9. Combination of clusters from HT 117a (e)

## K-R

Table 126.1.10. Combination of clusters from HT 117a (f)

| S-T |  |  |
| :---: | :---: | :---: |
| K-K-D-R |  |  |
| K-K-D | K-K | K-D |
| K-D-R | D-R |  |

Table 126.1.11. Combination of clusters from HT 117a (g)

| K-S-I-T |  |  |
| :---: | :---: | :---: |
| K-S-I | K-S | S-I |
| S-I-T | I-T |  |

Table 126.1.12. Combination of clusters from HT 117a (g)-(h)

| D-M-N |  |
| :---: | :---: |
| D-M | M-N |

Table 126.1.13. Combination of clusters from HT 117a (h)

| D-N-K-T |  |  |
| :---: | :---: | :---: |
| D-N-K | D-N | N-K |
| N-K-T | K-T |  |

Table 126.1.14. Combination of clusters from HT 117a (h)-(i)

| K-D-R |  |  |
| :---: | :---: | :---: |
| K-D | D-R |  |

Table 126.1.15. Combination of clusters from HT 117a (i)

### 3.126.2 Hittite

| MA-KA-RI-TE |  |  |
| :---: | :---: | :---: |
| MA-KA-RI | MA-KA | KA-RI |
| KA-RI-TE | RI-TE |  |
| KI-RO |  |  |

Table 126.2.1. Combination of clusters from HT 117a (a)

| U-MI-NA-SI |  |  |
| :---: | :---: | :---: |
| U-MI-NA | U-MI | MI-NA |
| MI-NA-SI | NA-SI |  |

Table 126.2.2. Combination of clusters from HT 117a (a)-(b)

| U-SU |
| :---: |
| MI-TU |

Table 126.2.3. Combination of clusters from HT 117a (b)

| KU-RA-MU |  |
| :---: | :---: |
| KU-RA | RA-MU |

Table 126.2.4. Combination of clusters from HT 117a (b)-(c)

| MA-RU |  |
| :---: | :---: |
| KU-PA-NU |  |
| KU-PA | PA-NU |

Table 126.2.5. Combination of clusters from HT 117a (c)

| TU-JU-MA |  |
| :---: | :---: |
| TU-JU | JU-MA |

Table 126.2.6. Combination of clusters from HT 117a (c)-(d)

| U-DI-MI |  |
| :---: | :---: |
| U-DI | DI-MI |

Table 126.2.7. Combination of clusters from HT 117a (d)

| MI-RU-TA-RA-RE |  |  |  |
| :---: | :---: | :---: | :---: |
| MI-RU-TA-RA | MI-RU-TA | MI-RU |  |
| RU-TA-RA-RE | RU-TA-RA | RU-TA |  |
| TA-RA-RE | TA-RA | RA-RE |  |

Table 126.2.8. Combination of clusters from HT 117a (d)-(e)

| TE-JA-RA |  |  |
| :---: | :---: | :---: |
| TE-JA | JA-RA |  |
| NA-DA-RE |  |  |
| NA-DA | DA-RE |  |

Table 126.2.9. Combination of clusters from HT 117a (e)

## KU-RO

Table 126.2.10. Combination of clusters from HT 117a (f)

| SA-TA |  |  |
| :---: | :---: | :---: |
| KU-KU-DA-RA |  |  |
| KU-KU-DA | KU-KU | KU-DA |
| KU-DA-RA | DA-RA |  |

Table 126.2.11. Combination of clusters from HT 117a (g)

| KO-SA-I-TI |  |  |
| :---: | :---: | :---: |
| KO-SA-I | KO-SA | SA-I |
| SA-I-TI | I-TI |  |

Table 126.2.12. Combination of clusters from HT 117a (g)-(h)

| DA-MI-NU |  |  |
| :---: | :---: | :---: |
| DA-MI | MI-NU |  |

Table 126.2.13. Combination of clusters from HT 117a (h)

| DA-NE-KU-TI |  |  |
| :---: | :---: | :---: |
| DA-NE-KU | DA-NE | NE-KU |
| NE-KU-TI | KU-TI |  |

Table 126.2.14. Combination of clusters from HT 117a (h)-(i)

| KI-DA-RO |  |
| :---: | :---: |
| KI-DA | DA-RO |

Table 126.2.15. Combination of clusters from HT 117a (i)

### 3.127 Artefact HT 117b

Transcription of Linear A characters on artefact HT 117b yielded strings under two distinct rows of clusters:
a. QI-TU-NE $\mid$ KU-RE-JU $\mid$
b. DI-KI-SE

H'T HZ

3-9 vacant
Image 127. Standardised inscription of HT 117b, obtained from GORILA 1
3.127.1 Common Semitic / Middle Egyptian

| Q-T-N |  |  |
| :---: | :---: | :---: |
| Q-T |  | T-N |
| K-R | K-J |  |

Table 127.1.1. Combination of clusters from HT 117b (a)

| D-K-S |  |
| :---: | :---: |
| D-K | K-S |

Table 127.1.2. Combination of clusters from HT 117b (b)

### 3.127.2 Hittite

| QI-TU-NE |  |  |
| :---: | :---: | :--- |
| QI-TU |  | TU-NE |
|  | KU-RE-JU |  |
| KU-RE |  | RE-JU |

Table 127.2.1. Combination of clusters from HT 117b (a)

| DI-KI-SE |  |
| :---: | :---: |
| DI-KI | KI-SE |

Table 127.2.2. Combination of clusters from HT 117b (b)

### 3.128 Artefact HT 118

Transcription of Linear A characters on artefact HT 118 yielded strings under five distinct rows of clusters:
a. *516 MA-DI
b. QQA-QA
c. RU|A-RI-SU
d. $\mid$ RI-RU-MA $\mid$
e. KU-RO|


Image 128. Standardised inscription of HT 118, obtained from GORILA 1

### 3.128.1 Common Semitic / Middle Egyptian

## M-D

Table 128.1.1. Combination of clusters from HT 118 (a)

| Q-Q-R |  |  |
| :---: | :---: | :---: |
| Q_Q | Q-R |  |

Table 128.1.2. Combination of clusters from HT 118 (b)

| A-R-S |  |
| :---: | :---: |
| A-R | R-S |

Table 128.1.3. Combination of clusters from HT 118 (d)

| R-R-M |  |
| :---: | :---: |
| R-R | R-M |

Table 128.1.4. Combination of clusters from HT 118 (d)

## K-R

Table 128.1.5. Combination of clusters from HT 118 (e)

## MA-DI

Table 128.2.1. Combination of clusters from HT 118 (a)

|  | QA－QA－RU |
| :---: | :---: |
| QA－QA | QA－RU |

Table 128．2．2．Combination of clusters from HT 118 （b）

| A－RI－SU |  |
| :---: | :---: |
| A－RI | RI－SU |

Table 128．2．3．Combination of clusters from HT 118 （d）

| RI－RU－MA |  |  |
| :---: | :---: | :---: |
| RI－RU | RU－MA |  |

Table 128．2．4．Combination of clusters from HT 118 （d）

## KU－RO

Table 128．2．5．Combination of clusters from HT 118 （e）

## 3．129 Artefact HT 119

Transcription of Linear A characters on artefact HT 119 yielded strings under four distinct rows of clusters：
a．RI－MI－SI｜KO－JA $\mid$
b．KU－PA－NA－TU
c．JA＊345｜
d．KU－RO

$$
\begin{aligned}
& \text { •田二而鿊三三品 } \\
& 2(364)-川(8 \text { 目 })
\end{aligned}
$$

$$
\begin{aligned}
& \text { s i! ! ! (るt) ○三 }
\end{aligned}
$$

Image 129．Standardised inscription of HT 119，obtained from GORILA 1

3．129．1 Common Semitic／Middle Egyptian

| R－M－S |  |  |
| :---: | :---: | :---: |
| R－M | K－S |  |

Table 129．1．1．Combination of clusters from HT 119 （a）

| K-P-N-T |  |  |
| :---: | :---: | :---: |
| K-P-N | K-P | P-N |
| P-N-T | N-T |  |

Table 129.1.2. Combination of clusters from HT 119 (b)
K-R

Table 129.1.3. Combination of clusters from HT 119 (d)
3.129.2 Hittite

|  | RI-MI-SI |  |
| :---: | :---: | :---: |
| RI-MI |  | MI-SI |
|  | KO-JA |  |

Table 129.2.1. Combination of clusters from HT 119 (a)

| KU-PA-NA-TU |  |  |
| :---: | :---: | :---: |
| KU-PA-NA | KU-PA | PA-NA |
| PA-NA-TU | NA-TU |  |

Table 129.2.2. Combination of clusters from HT 119 (b)

## KU-RO

Table 129.2.3. Combination of clusters from HT 119 (d)

### 3.130 Artefact HT 120

Transcription of Linear A characters on artefact HT 120 yielded strings under five distinct rows of clusters:
a. DA-QE-RA | DA-ME
b. |DA-U
c. $|\mathrm{I} * 574| \mathrm{KI}$
d. RE-TA-NA *580|
e. $\mid$ PA-I-TO|


Image 130. Standardised inscription of HT 120, obtained from GORILA 1
3.130.1 Common Semitic / Middle Egyptian

| D-Q-R |  |  |  |
| :---: | :---: | :---: | :---: |
| D-Q | Q-R |  |  |
|  | D-M |  |  |

Table 130.1.1. Combination of clusters from HT 120 (a)
D-U

Table 130.1.2. Combination of clusters from HT 120 (b)

| K-R-T-N |  |  |
| :---: | :---: | :---: |
| K-R-T | K-R | R-T |
| R-T-N | T-N |  |

Table 130.1.3. Combination of clusters from HT 120 (c)-(d)

| P-I-T |  |
| :---: | :---: |
| P-I | I-T |

Table 130.1.4. Combination of clusters from HT 120 (e)

### 3.130.2 Hittite

| DA-QE-RA |  |  |
| :---: | :---: | :---: |
| DA-QE | QE-RA |  |
|  | DA-ME |  |

Table 130.2.1. Combination of clusters from HT 120 (a)

## DA-U

Table 130.2.2. Combination of clusters from HT 120 (b)

| KI-RE-TA-NA |  |  |  |
| :---: | :---: | :---: | :---: |
| KI-RE-TA | KI-RE | RE-TA |  |


| RE-TA-NA | TA-NA |  |
| :---: | :---: | :---: |

Table 130.2.3. Combination of clusters from HT 120 (c)-(d)

|  | PA-I-TO |
| :---: | :---: |
| PA-I | I-TO |

Table 130.2.4. Combination of clusters from HT 120 (e)

### 3.131 Artefact HT 121

Transcription of Linear A characters on artefact HT 121 yielded strings under two distinct rows of clusters:
a. KI-RI-TA
b. SA-RA


Image 131. Standardised inscription of HT 121, obtained from GORILA 1

### 3.131.1 Common Semitic / Middle Egyptian

| K-R-T |  |
| :---: | :---: |
| K-R | R-T |

Table 131.1.1. Combination of clusters from HT 121 (a)

## S-R

Table 131.1.2. Combination of clusters from HT 121 (b)

### 3.131.2 Hittite

| KI-RI-TA |  |
| :---: | :---: |
| KI-RI | RI-TA |

Table 131.2.1. Combination of clusters from HT 121 (a)

## SA-RA

Table 131.2.2. Combination of clusters from HT 121 (b)

### 3.132 Artefact HT 122a

Transcription of Linear A characters on artefact HT 122a yielded strings under eight distinct rows of clusters:
a. |RA-RI|U-DE-ZA |
b. DA-SI *118|
c. $\mid$ TE-KI $\mid$
d. QA *310 I JJA-MI-DA-RE
e. SI-DA-RE |*324 DI-RA |PA-DE |
f. KU-PA-NU | PA-TA-NE |
g. |KU-PA-NU | DA-RI-DA |
h. KU-RO|KU-DA HFI 199

$$
\begin{aligned}
& 1 \quad][2]) \cdot\left(1+x+\frac{x}{x}\right)! \\
& 2 \quad \quad]!\left(1-4 a^{t} \Delta\right): \neq
\end{aligned}
$$

$$
\begin{aligned}
& .4(F \text { \& }
\end{aligned}
$$

$$
\begin{aligned}
& 8(3 t)=-1(z t) \prime
\end{aligned}
$$

Image 132. Standardised inscription of HT 122a, obtained from GORILA 1
3.132.1 Common Semitic / Middle Egyptian

| $\mathbf{R - R}$ |  |  |
| :---: | :---: | :---: |
| U-D-Z |  |  |
| U-D | D-Z |  |

Table 132.1.1. Combination of clusters from HT 122a (a)

## D-S

Table 132.1.2. Combination of clusters from HT 122a (b)

## T-K

Table 132.1.3. Combination of clusters from HT 122a (c)

| J-M-D-R |  |  |
| :---: | :---: | :---: |
| J-M-D | J-M | M-D |
| M-D-R | D-R |  |

Table 132.1.4. Combination of clusters from HT 122a (d)

| S-D-R |  |  |
| :---: | :---: | :---: |
| S-D | D-R |  |
| D-R |  |  |
| P-D |  |  |

Table 132.1.5. Combination of clusters from HT 122a (e)

| K-P-N |  |  |
| :---: | :---: | :---: |
| K-P |  | P-N |
| P-T | P-T-N |  |

Table 132.1.6. Combination of clusters from HT 122a (f)

| K-P-N |  |  |
| :---: | :---: | :---: |
| K-P |  | P-N |
|  | D-R-D |  |
| D-R |  | R-D |

Table 132.1.7. Combination of clusters from HT 122a (g)

| K-R |
| :---: |
| K-D |

Table 132.1.8. Combination of clusters from HT 122a (h)

### 3.132.2 Hittite

| RA-RI |  |  |
| :---: | :---: | :---: |
|  | U-DE-ZA |  |
| U-DE | DE-ZA |  |

Table 132.2.1. Combination of clusters from HT 122a (a)

## DA-SI

Table 132.2.2. Combination of clusters from HT 122a (b)

## TE-KI

Table 132.2.3. Combination of clusters from HT 122a (c)

| JA-MI-DA-RE |  |  |
| :---: | :---: | :---: |
| JA-MI-DA | JA-MI | MI-DA |
| MI-DA-RE | DA-RE |  |

Table 132.2.4. Combination of clusters from HT 122a (d)

| SI-DA-RE |  |  |
| :---: | :---: | :---: |
| SI-DA | DA-RE |  |
|  | DI-RA |  |
| PA-DE |  |  |

Table 132.2.5. Combination of clusters from HT 122a (e)

| KU－PA－NU |  |  |
| :---: | :---: | :---: |
| KU－PA | PA－NU |  |
| PA－TA－NE |  |  |
| PA－TA |  | TA－NE |

Table 132．2．6．Combination of clusters from HT 122a（f）

| KU－PA－NU |  |  |
| :---: | :---: | :---: |
| KU－PA | PA－NU |  |
| DA－RI－DA |  |  |
| DA－RI | RI－DA |  |

Table 132．2．7．Combination of clusters from HT 122a（g）

| KU－RO |
| :--- |
| KU－DA |

Table 132．2．8．Combination of clusters from HT 122a（h）

## 3．133 Artefact HT 122b

Transcription of Linear A characters on artefact HT 122b yielded strings under six distinct rows of clusters：
a．JE－DI｜
b．＊306 KI－TA｜
c．A－RA－JU－U－DE－ZA｜QA－QA
d．RU｜DA－RE｜
e．KU－RO｜
f．PO－TO－KU－RO HT（199）

$$
7 \text { vacat }
$$

Image 133．Standardised inscription of HT 122b，obtained from GORILA 1

$$
\begin{aligned}
& { }_{1}\left(\begin{array}{ll}
x & \pi \\
i
\end{array}\right) \quad \square \cdot \bar{A}[ \\
& \text { 2( } 4 \text { 多 } 7 \text { ) } 111 \text { [ }
\end{aligned}
$$

$$
\begin{aligned}
& 4 \omega]!\prod_{1} \quad 1 \quad(r \psi): \\
& 5(z+) \equiv \equiv 111 \\
& \text {. } 6(\text { 个F子十 }) \equiv \equiv \equiv 1!!
\end{aligned}
$$

### 3.133.1 Common Semitic / Middle Egyptian

## J-D

Table 133.1.1. Combination of clusters from HT 122b (a)

## K-T

Table 133.1.2. Combination of clusters from HT 122b (b)

| A-R-J-U-D-Z |  |  |
| :---: | :---: | :---: |
| A-R-J-U-D | A-R-J-U | A-R-J |
| A-R | R-J-U-D-Z | R-J-U-D |
| R-J-U | R-J | J-U-D-Z |
| J-U-D | J-U | U-D-Z |
| U-D | D-Z |  |

Table 133.1.3. Combination of clusters from HT 122b ©

| Q-Q-R |  |  |
| :---: | :---: | :---: |
| Q-Q | Q-R |  |

Table 133.1.4. Combination of clusters from HT 122b ©-(d)

## D-R

Table 133.1.5. Combination of clusters from HT 122b (d)

K-R
Table 133.1.6. Combination of clusters from HT 122b (e)

| P-T-K-R |  |  |
| :---: | :---: | :---: |
| P-T-K | P-T | T-K |
| T-K-R | K-R |  |

Table 133.1.7. Combination of clusters from HT 122b (f)

### 3.133.2 Hittite

## JE-DI

Table 133.2.1. Combination of clusters from HT 122b (a)

## KI-TA

Table 133.2.2. Combination of clusters from HT 122b (b)

| A-RA-JU-U-DE-ZA |  |  |
| :---: | :---: | :---: |
| A-RA-JU-U-DE | A-RA-JU-U | A-RA-JU |
| A-RA | RA-JU-U-DE-ZA | RA-JU-U-DE |
| RA-JU-U | RA-JU | JU-U-DE-ZA |
| JU-U-DE | JU-U | U-DE-ZA |


| U-DE | DE-ZA |  |
| :---: | :---: | :---: |

Table 133.2.3. Combination of clusters from HT 122b (c)

|  | QA-QA-RU |
| :---: | :---: |
| QA-QA | QA-RU |

Table 133.2.4. Combination of clusters from HT 122b (c)-(d)

## DA-RE

Table 133.2.5. Combination of clusters from HT 122b (d)

## KU-RO

Table 133.2.6. Combination of clusters from HT 122b (e)

| PO-TO-KU-RO |  |  |
| :---: | :---: | :---: |
| PO-TO-KU | PO-TO | TO-KU |
| TO-KU-RO | KU-RO |  |

Table 133.2.7. Combination of clusters from HT 122b (f)

### 3.134 Artefact HT 123a

Transcription of Linear A characters on artefact HT 123a yielded strings under eight distinct rows of clusters:
a. KI-TA-I
b. $|\mathrm{KI}-\mathrm{RO}|$
c. $|\mathrm{KI}-\mathrm{RO}| \mathrm{SA}-\mathrm{RU} \mid$
d. $|\mathrm{KI}-\mathrm{RO}|$
e. DA-TU |
f. KI-RO |KU-RO |
g. $|\mathrm{KU}-\mathrm{RO}|$
h. |KI-RO

```
IH'T AM54
    1(白口仙).op:;
    2* 㗊つ(白+)!#
    3 隹布 隹:1
    4 !(\forall+)# # (y w) w..."
    s \forall !! #[][白 +) ᄂл
```



```
    7 (白 十) 么 (子+)M M
    8 ::O:'L Al:M+):[
    9 III人(白十㘳
```

Image 134．Standardised inscription of HT 123a，obtained from GORILA 1

3．134．1 Common Semitic／Middle Egyptian

| K－T－I |  |
| :---: | :---: |
| K－T | T－I |

Table 134．1．1．Combination of clusters from HT 123a（a）

## K－R

Table 134．1．2．Combination of clusters from HT 123a（b）

## S－R

Table 134．1．3．Combination of clusters from HT 123a（c）

## K－R

Table 134．1．4．Combination of clusters from HT 123a（d）

## D－T

Table 134．1．5．Combination of clusters from HT 123a（e）

| K－R |
| :---: |
| K－R |

Table 134．1．6．Combination of clusters from HT 123a（f）

## K－R

Table 134．1．7．Combination of clusters from HT 123a（g）

## K－R

Table 134．1．8．Combination of clusters from HT 123a（h）
3.134.2 Hittite

| KI-TA-I |  |
| :---: | :---: |
| KI-TA | TA-I |

Table 134.2.1. Combination of clusters from HT 123a (a)

## KI-RO

Table 134.2.2. Combination of clusters from HT 123a (b)

| KI-RO |
| :--- |
| SA-RU |

Table 134.2.3. Combination of clusters from HT 123a (c)

## KI-RO

Table 134.2.4. Combination of clusters from HT 123a (d)

## DA-TU

Table 134.2.5. Combination of clusters from HT 123a (e)

| KI-RO |
| :---: |
| KU-RO |

Table 134.2.6. Combination of clusters from HT 123a (f)

## KU-RO

Table 134.2.7. Combination of clusters from HT 123a (g)

## KI-RO

Table 134.2.8. Combination of clusters from HT 123a (h)

### 3.135 Artefact HT 123b

Transcription of Linear A characters on artefact HT 123b yielded strings under five distinct rows of clusters:
a. TI-DA-TA $\mid$ PI-SA $\mid$
b. *188 DU | TU-PA-DI-DA
c. |KA-NA | SI-DU
d. PA-DU-MA-I-NA |
e. KU-RO|KI-RO


Image 135. Standardised inscription of HT 123b, obtained from GORILA 1

### 3.135.1 Common Semitic / Middle Egyptian

| T-D-T |  |  |
| :---: | :---: | :---: |
| T-D | D-T |  |
| P-S |  |  |

Table 135.1.1. Combination of clusters from HT 123b (a)

| T-P-D-D |  |  |
| :---: | :---: | :---: |
| T-P-D | T-P | P-D |
| P-D-D | D-D |  |

Table 135.1.2. Combination of clusters from HT 123b (b)

| K-N |
| :---: |
| S-D |

Table 135.1.3. Combination of clusters from HT 123b (c)

| P-D-M-I-N |  |  |
| :---: | :---: | :---: |
| P-D-M-I | P-D-M | P-D |
| D-M-I-N | D-M-I | D-M |
| M-I-N | M-I | I-N |

Table 135.1.4. Combination of clusters from HT 123b (d)

| K-R |
| :--- |
| K-R |

Table 135.1.5. Combination of clusters from HT 123b (e)

### 3.135.2 Hittite

| TI-DA-TA |  |  |
| :---: | :---: | :---: |
| TI-DA | DA-TA |  |
| PI-SA |  |  |

Table 135.2.1. Combination of clusters from HT 123b (a)

| TU-PA-DI-DA |  |  |
| :---: | :---: | :---: |
| TU-PA-DI | TU-PA | PA-DI |
| PA-DI-DA | DI-DA |  |

Table 135.2.2. Combination of clusters from HT 123b (b)

| KA-NA |
| :---: |
| SI-DU |

Table 135.2.3. Combination of clusters from HT 123b (c)

| PA-DU-MA-I-NA |  |  |
| :---: | :---: | :---: |
| PA-DU-MA-I | PA-DU-MA | PA-DU |
| DU-MA-I-NA | DU-MA-I | DU-MA |
| MA-I-NA | MA-I | I-NA |

Table 135.2.4. Combination of clusters from HT 123b (d)

| KU-RO |
| :---: |
| KI-RO |

Table 135.2.5. Combination of clusters from HT 123b (e)

### 3.136 Artefact HT 125a

Transcription of Linear A characters on artefact HT 125a yielded a string under one distinct row of cluster:
a. SA-RA

HT AO2\%


Image 136. Standardised inscription of HT 125a, obtained from GORILA 1

### 3.136.1 Common Semitic / Middle Egyptian

## S-R

Table 136.1.1. Combination of clusters from HT 125a (a)
3.136.2 Hittite

SA-RA
Table 136.2.1. Combination of clusters from HT 125a (a)

### 3.137 Artefact HT 125b

Transcription of Linear A characters on artefact HT 125b yielded a string under one distinct row of cluster:
a. $\mid$ RE-TA *574

## HT (1935)



3

.5



Image 137. Standardised inscription of HT 125b, obtained from GORILA 1
3.137.1 Common Semitic / Middle Egyptian

## R-T

Table 137.1.1. Combination of clusters from HT 125b (a)

### 3.137.2 Hittite

## RE-TA

Table 137.2.1. Combination of clusters from HT 125b (a)

### 3.138 Artefact HT 126a

Transcription of Linear A characters on artefact HT 126a yielded strings under four distinct rows of clusters:
a. DA-NA-SI
b. A-NA |
c. SI-DI-JA |
d. $\mathrm{U} * 49$ |

## HIT IMAI



Image 138. Standardised inscription of HT 126a, obtained from GORILA 1
3.138.1 Common Semitic / Middle Egyptian

| D-N-S |  |
| :---: | :---: |
| D-N | N-S |

Table 138.1.1. Combination of clusters from HT 126a (a)

## A-N

Table 138.1.2. Combination of clusters from HT 126a (b)

| S-D-J |  |
| :---: | :---: |
| S-D | D-J |

Table 138.1.3. Combination of clusters from HT 126a (c)

### 3.138.2 Hittite

| DA-NA-SI |  |
| :---: | :---: |
| DA-NA NA-SI |  |

Table 138.2.1. Combination of clusters from HT 126a (a)
A-NA

Table 138.2.2. Combination of clusters from HT 126a (b)

| SI-DI-JA |  |  |
| :---: | :---: | :---: |
| SI-DI | DI-JA |  |

Table 138.2.3. Combination of clusters from HT 126a (c)

### 3.139 Artefact HT 127a

Transcription of Linear A characters on artefact HT 127a yielded strings under two distinct rows of clusters:
a. DU-NE-MI |
b. *629 DA *47 KU

Image 139．Standardised inscription of HT 127a，obtained from GORILA 1

3．139．1 Common Semitic／Middle Egyptian

| D－N－M |  |
| :---: | :---: | :---: |
| D－N | N－M |

Table 139．1．1．Combination of clusters from HT 127a（a）

3．139．2 Hittite

| DU－NE－MI |  |
| :---: | :---: |
| DU－NE | NE－MI |

Table 139．2．1．Combination of clusters from HT 127a（a）

## 3．140 Artefact HT 127b

Transcription of Linear A characters on artefact HT 127b yielded strings under two distinct rows of clusters：
a．KU－RO＊307｜
b．KU－RO

$$
\text { H'T } 19 z \mathrm{~b}
$$

$$
\begin{aligned}
& .1 \\
& 2 \text { ]毛一! } \\
& 3]_{\underline{\text { vacat }}} \\
& .4(子+1) 0 \equiv=i: 17
\end{aligned}
$$

$$
\begin{aligned}
& 6 A^{-1} \llbracket \frac{1}{b}+0 \text { ! } \\
& \text {. } 7 \text { (子t) } \circ \text { ミミミ! }
\end{aligned}
$$

Image 140．Standardised inscription of HT 127b，obtained from GORILA 1

3．140．1 Common Semitic／Middle Egyptian
K－R
Table 140．1．1．Combination of clusters from HT 127b（a）
K－R

Table 140．1．2．Combination of clusters from HT 127b（b）

3．140．2 Hittite

## KU－RO

Table 140．2．1．Combination of clusters from HT 127b（a）

## KU－RO

Table 140．2．2．Combination of clusters from HT 127b（b）

## 3．141 Artefact HT 128a

Transcription of Linear A characters on artefact HT 128a yielded strings under four distinct rows of clusters：
a．｜PA－RA｜TU－RU－NU－SE－ME
b．｜WA－TU－MA－RE＊579｜
c． $\mid$ MI－TA＊574｜
d． $\mid \mathrm{MA}-\mathrm{RI}$
I＇T 198is

$$
\begin{aligned}
& 2 \text { 秀 ( }
\end{aligned}
$$

$$
\begin{aligned}
& 4 \text { 还析 (山己 }
\end{aligned}
$$

Image 141．Standardised inscription of HT 128a，obtained from GORILA 1

## 3．141．1 Common Semitic／Middle Egyptian

| P－R |  |  |
| :---: | :---: | :---: |
| T－R－N－S－M |  |  |
| T－R－N－S | T－R－N | T－R |
| R－N－S－M | R－N－S | R－N |
| N－S－M | N－S | S－M |

Table 141．1．1．Combination of clusters from HT 128a（a）

| W－T－M－R |  |  |
| :---: | :---: | :---: |
| W－T－M | W－T | T－M |


| T-M-R | M-R |  |
| :---: | :---: | :---: |

Table 141.1.2. Combination of clusters from HT 128a (b)
$\square$

## M-T

Table 141.1.3. Combination of clusters from HT 128a (c)

## M-R

Table 141.1.4. Combination of clusters from HT 128a (d)
3.141.2 Hittite

| PA-RA |  |  |
| :---: | :---: | :---: |
| TU-RU-NU-SE-ME |  |  |
| TU-RU-NU-SE | TU-RU-NU | TU-RU |
| RU-NU-SE-ME | RU-NU-SE | RU-NU |
| NU-SE-ME | NU-SE | SE-ME |

Table 141.2.1. Combination of clusters from HT 128a (a)

| WA-TU-MA-RE |  |  |  |
| :---: | :---: | :---: | :---: |
| WA-TU-MA | WA-TU | TU-MA |  |
| TU-MA-RE | MA-RE |  |  |

Table 141.2.2. Combination of clusters from HT 128a (b)

## MI-TA

Table 141.2.3. Combination of clusters from HT 128a (c)

## MA-RI

Table 141.2.4. Combination of clusters from HT 128a (d)

### 3.142 Artefact HT 129

Transcription of Linear A characters on artefact HT 129 yielded strings under two distinct rows of clusters:
a. KI-RE-TA |
b. |TU-QI-RI-NA

II'T 1 (9)

$$
\begin{aligned}
& \text {. } T-H^{*}=1(\square A 2 \bar{i}) \\
& .3 \quad \bar{\sigma}==\angle \nabla_{\bar{\prime}}![
\end{aligned}
$$

Image 142. Standardised inscription of HT 129, obtained from GORILA 1
3.142.1 Common Semitic / Middle Egyptian

| K-R-T |  |
| :---: | :---: |
| K-R | R-T |

Table 142.1.1. Combination of clusters from HT 129 (a)

| T-Q-R-N |  |  |
| :---: | :---: | :---: |
| T-Q-R | T-Q | Q-R |
| Q-R-N | R-N |  |

Table 142.1.2. Combination of clusters from HT 129 (b)

### 3.142.2 Hittite

| KI-RE-TA |  |
| :---: | :---: |
| KI-RE | RE-TA |

Table 142.2.1. Combination of clusters from HT 129 (a)

| TU-QI-RI-NA |  |  |
| :---: | :---: | :---: |
| TU-QI-RI | TU-QI | QI-RI |
| QI-RI-NA | RI-NA |  |

Table 142.2.2. Combination of clusters from HT 129 (b)

### 3.143 Artefact HT 130

Transcription of Linear A characters on artefact HT 130 yielded strings under two distinct rows of clusters:
a. SA-RA *303 |
b. KU-RO |



Image 143. Standardised inscription of HT 130, obtained from GORILA 1

### 3.143.1 Common Semitic / Middle Egyptian

Table 143.1.1. Combination of clusters from HT 130 (a)

## K-R

Table 143.1.2. Combination of clusters from HT 130 (b)
3.143.2 Hittite

## SA-RA

Table 143.2.1. Combination of clusters from HT 130 (a)

## KU-RO

Table 143.2.2. Combination of clusters from HT 130 (b)

### 3.144 Artefact HT 131a

Transcription of Linear A characters on artefact HT 131a yielded a string under one distinct row of cluster:
a. I-QA

IIT Möla


Image 144. Standardised inscription of HT 131a, obtained from GORILA 1
3.144.1 Common Semitic / Middle Egyptian

I-Q
Table 144.1.1. Combination of clusters from HT 131a (a)

### 3.144.2 Hittite

## I-QA

Table 144.2.1. Combination of clusters from HT 131a (a)

### 3.145 Artefact HT 131b

Transcription of Linear A characters on artefact HT 131b yielded a string under one distinct row of cluster:
a. PO-TO-KU-RO

## HIT A51b



Image 145. Standardised inscription of HT 131b, obtained from GORILA 1
3.145.1 Common Semitic / Middle Egyptian

| P-T-K-R |  |  |
| :---: | :---: | :---: |
| P-T-K | P-T | T-K |
| T-K-R | K-R |  |

Table 145.1.1. Combination of clusters from HT 131b (a)
3.145.2 Hittite

| PO-TO-KU-RO |  |  |
| :---: | :---: | :---: |
| PO-TO-KU | PO-TO | TO-KU |
| TO-KU-RO | KU-RO |  |

Table 145.2.1. Combination of clusters from HT 131b (a)

### 3.146 Artefact HT 132

Transcription of Linear A characters on artefact HT 132 yielded strings under two distinct rows of clusters:
a. A-SE |QA-RE
b. TO

IIT' 159



3


Image 146. Standardised inscription of HT 132, obtained from GORILA 1

### 3.146.1 Common Semitic / Middle Egyptian

## A-S

Table 146.1.1. Combination of clusters from HT 132 (a)

| Q-R-T |  |
| :---: | :---: |
| Q-R | R-T |

Table 146.1.2. Combination of clusters from HT 132 (a)-(b)
3.146.2 Hittite
A-SE

Table 146.2.1. Combination of clusters from HT 132 (a)

| QA-RE-TO |  |
| :---: | :---: |
| QA-RE | RE-TO |

Table 146.2.2. Combination of clusters from HT 132 (a)-(b)

### 3.147 Artefact HT 133

Transcription of Linear A characters on artefact HT 133 yielded strings under one distinct row of clusters:
a. A-DU |

HTP $15 \%$

$$
\begin{aligned}
& 2 \text { : : "II }
\end{aligned}
$$

.3 vacat
Image 147. Standardised inscription of HT 133, obtained from GORILA 1
3.147.1 Common Semitic / Middle Egyptian
A-D

Table 147.1.1. Combination of clusters from HT 133 (a)

### 3.147.2 Hittite

## A-DU

Table 147.2.1. Combination of clusters from HT 133 (a)

### 3.148 Artefact HT 135a

Transcription of Linear A characters on artefact HT 135a yielded strings under three distinct rows of clusters:
a. $\mid$ NE-MI-NA $\mid$
b. |MI-TU | MI-KA
c. NA-QI-NE


Image 148. Standardised inscription of HT 135a, obtained from GORILA 1
3.148.1 Common Semitic / Middle Egyptian

| N-M-N |  |
| :---: | :---: | :---: |
| N-M | M-N |

Table 148.1.1. Combination of clusters from HT 135a (a)

| $\mathbf{M - T}$ |
| :---: |
| $\mathbf{M - K}$ |

Table 148.1.2. Combination of clusters from HT 135a (b)

|  | N-Q-N |  |
| :---: | :---: | :---: |
| N-Q | Q-N |  |

Table 148.1.3. Combination of clusters from HT 135a (c)
3.148.2 Hittite

|  | NE-MI-NA |
| :---: | :---: |
| NE-MI | MI-NA |

Table 148.2.1. Combination of clusters from HT 135a (a)

| MI-TU |
| :---: |
| MI-KA |

Table 148.2.2. Combination of clusters from HT 135a (b)

|  | NA-QI-NE |
| :---: | :---: |
| NA-QI | QI-NE |

Table 148.2.3. Combination of clusters from HT 135a (c)

### 3.149 Artefact HT 135b

Transcription of Linear A characters on artefact HT 135b yielded a string under one distinct row of cluster:
a. $\mid$ TA-NE $\mid$

## II＇T 165\％



Image 149．Standardised inscription of HT 135b，obtained from GORILA 1

## 3．149．1 Common Semitic／Middle Egyptian

T－N
Table 149．1．1．Combination of clusters from HT 135b（a）

3．149．2 Hittite

## TA－NE

Table 149．2．1．Combination of clusters from HT 135b（a）

## 3．150 Artefact HT 139

Transcription of Linear A characters on artefact HT 139 yielded strings under two distinct rows of clusters：
a．｜PU－MA－KU
b．｜KA－RA
HT T（IFS）
.1
.2

速1习し
.3
$J(\oplus 27)$

Image 150．Standardised inscription of HT 139，obtained from GORILA 1

3．150．1 Common Semitic／Middle Egyptian

| P－M－K |  |
| :---: | :---: |
| P－M | M－K |

Table 150．1．1．Combination of clusters from HT 139 （a）

## K－R

Table 150．1．2．Combination of clusters from HT 139 （b）
PU-MA MA-KU

Table 150.2.1. Combination of clusters from HT 139 (a)

## KA-RA

Table 150.2.2. Combination of clusters from HT 139 (b)

### 3.151 Artefact HT 140

Transcription of Linear A characters on artefact HT 140 yielded strings under three distinct rows of clusters:
a. U *34 SI |*86 SI-NI | JE-DI
b. |U *34 SI |*86 SI *118 KA |
c. $\mid$ KA-PA


Image 151. Standardised inscription of HT 140, obtained from GORILA 1

### 3.151.1 Common Semitic / Middle Egyptian

| $\mathbf{S - N}$ |
| :--- |
| $\mathbf{J - D}$ |

Table 151.1.1. Combination of clusters from HT 140 (a)

## K-P

Table 151.1.2. Combination of clusters from HT 140 (c)
3.151.2 Hittite
SI-NI

Table 151.2.1. Combination of clusters from HT 140 (a)

## KA-PA

Table 151.2.2. Combination of clusters from HT 140 (c)

### 3.152 Artefact HT 141

Transcription of Linear A characters on artefact HT 141 yielded strings under two distinct rows of clusters:
a. $|\mathrm{A}-\mathrm{RI}|$
b. RU-DI

IIT $1 / 4$


Image 152. Standardised inscription of HT 141, obtained from GORILA 1
3.152.1 Common Semitic / Middle Egyptian

## A-R

Table 152.1.1. Combination of clusters from HT 141 (a)

## R-D

Table 152.1.2. Combination of clusters from HT 141 (b)
3.152.2 Hittite

## A-RI

Table 152.2.1. Combination of clusters from HT 141 (a)

## RU-DI

Table 152.2.2. Combination of clusters from HT 141 (b)

### 3.153 Artefact HT 146

Transcription of Linear A characters on artefact HT 146 yielded strings under two distinct rows of clusters:
a. RI *305 |
b. RI-KA-TA


Image 153. Standardised inscription of HT 146, obtained from GORILA 1
3.153.1 Common Semitic / Middle Egyptian

| R-K-T |  |
| :---: | :---: |
| R-K | K-T |

Table 153.1.1. Combination of clusters from HT 146 (b)
3.153.2 Hittite

| RI-KA-TA |  |
| :---: | :---: |
| RI-KA | KA-TA |

Table 153.2.1. Combination of clusters from HT 146 (b)

### 3.154 Artefact HT 154 A

Transcription of Linear A characters on artefact HT 154a yielded a string under one distinct row of cluster:
a. TU-ME-PA-JA


Image 154. Standardised inscription of HT 154 A, obtained from GORILA 1
3.154.1 Common Semitic / Middle Egyptian

| T-M-P-J |  |  |
| :---: | :---: | :---: |
| T-M-P | T-M | M-P |
| M-P-J | P-J |  |

Table 154.1.1. Combination of clusters from HT 154 A (a)
3.154.2 Hittite

| TU-ME-PA-JA |  |  |
| :---: | :---: | :---: |
| TU-ME-PA | TU-ME | ME-PA |
| ME-PA-JA | PA-JA |  |

Table 154.2.1. Combination of clusters from HT 154 A (a)

### 3.155 Artefact HT 154 Ja

Transcription of Linear A characters on artefact HT 154 Ja yielded a string under one distinct row of cluster:
a. $|\mathrm{NU}-\mathrm{TE}|$



Image 155. Standardised inscription of HT 154 Ja, obtained from GORILA 1
3.155.1 Common Semitic / Middle Egyptian

N-T
Table 155.1.1. Combination of clusters from HT 154a Ja (a)

### 3.155.2 Hittite

## NU-TE

Table 155.2.1. Combination of clusters from HT 154a Ja (a)

### 3.156 Artefact KE 1

Transcription of Linear A characters on artefact KE 1 yielded a string under one distinct row of cluster:
a. KA-SA $\mid$

にほ!
. $\&(\oplus)$ Y $]$
.2


Image 156. Standardised inscription of KE 1, obtained from GORILA 1

### 3.156.1 Common Semitic / Middle Egyptian

## K-S

Table 156.1.1. Combination of clusters from KE 1 (a)

## KA－SA

Table 156．2．1．Combination of clusters from KE 1 （a）

## 3．157 Artefact KN 1a

Transcription of Linear A characters on artefact KN 1a yielded a string under one distinct row of cluster：
a．JA－KU－TI
IKN IIt
$1(日 子$ (1)
2 € ○ : :
.3 vacak
Image 157．Standardised inscription of KN 1a，obtained from GORILA 1

## 3．157．1 Common Semitic／Middle Egyptian

| J－K－T |  |
| :---: | :---: |
| J－K | K－T |

Table 157．1．1．Combination of clusters from KN 1a（a）

3．157．2 Hittite

| JA－KU－TI |  |
| :---: | :---: | :---: |
| JA－KU | KU－TI |

Table 157．2．1．Combination of clusters from KN 1a（a）

## 3．158 Artefact KN 1b

Transcription of Linear A characters on artefact KN 1b yielded a string under one distinct row of cluster：
a．JA－DU－RA－TI
IN $\cdot$ Ib


Image 158．Standardised inscription of KN 1b，obtained from GORILA 1

## 3．158．1 Common Semitic／Middle Egyptian

## J－D－R－T

| J-D-R | J-D | D-R |
| :---: | :---: | :---: |
| D-R-T | R-T |  |

Table 158.1.1. Combination of clusters from KN 1b (a)
3.158.2 Hittite

| JA-DU-RA-TI |  |  |
| :---: | :---: | :---: |
| JA-DU-RA | JA-DU | DU-RA |
| DU-RA-TI | RA-TI |  |

Table 158.2.1. Combination of clusters from KN 1b (a)

### 3.159 Artefact KN 2

Transcription of Linear A characters on artefact KN 2 yielded a string under one distinct row of cluster:
a. |RU-NA

KN $\mathbf{g}$

$$
\begin{aligned}
& 1 \text { (佃 ije" } \\
& \text { 2. }
\end{aligned}
$$

Image 159. Standardised inscription of KN 2, obtained from GORILA 1

### 3.159.1 Common Semitic / Middle Egyptian

## R-N

Table 159.1.1. Combination of clusters from KN 2 (a)
3.159.2 Hittite

## RU-NA

Table 159.2.1. Combination of clusters from KN 2 (a)

### 3.160 Artefact KN 22a

Transcription of Linear A characters on artefact KN 22a yielded strings under two distinct rows of clusters:
a. $\mid$ SU-JU-TA $\mid$
b. $\mid$ KA-JE $\mid$

$$
\begin{aligned}
& \therefore \text {. }(\oplus X)-[\text { lmax }
\end{aligned}
$$

Image 160. Standardised inscription of KN 22a, obtained from GORILA 1

### 3.160.1 Common Semitic / Middle Egyptian

| S-J-T |  |
| :---: | :---: |
| S-J J-T |  |

Table 160.1.1. Combination of clusters from KN 22a (a)

## K-J

Table 160.1.2. Combination of clusters from KN 22a (b)

### 3.160.2 Hittite

| SU-JU-TA |  |
| :---: | :---: |
| SU-JU | JU-TA |
| Table 160.2.1. Combination of clusters from KN 22a (a) |  |

## KA -JV

Table 160.2.2. Combination of clusters from KN 22a (b)

### 3.161 Artefact KN 22b

Transcription of Linear A characters on artefact KN 22b yielded a string under one distinct row of cluster:
a. |PO-DI-PA

KN Mg]


Image 161. Standardised inscription of KN 22b, obtained from GORILA 1

### 3.161.1 Common Semitic / Middle Egyptian

| P-D-P |  |
| :---: | :---: |
| P-D | D-P |

Table 161.1.1. Combination of clusters from KN 22b (a)

### 3.161.2 Hittite

| PO-DI-PA |  |  |
| :---: | :---: | :---: |
| PO-DI | DI-PA |  |

Table 161.2.1. Combination of clusters from KN 22b (a)

### 3.162 Artefact KN 22c

Transcription of Linear A characters on artefact KN 22c yielded strings under one distinct row of clusters:
a. $\mid$ MA-SU-MI $\mid$

KN Me:
$1]\left[\begin{array}{lll}4 & (6)\end{array}\right) \cdot[\cdot]-\bar{\vdots}[$
. 2 ]


Image 162. Standardised inscription of KN 22c, obtained from GORILA 1
3.162.1 Common Semitic / Middle Egyptian

| M-S-M |  |
| :---: | :---: |
| M-S | S-M |

Table 162.1.1. Combination of clusters from KN 22c (a)
3.162.2 Hittite

| MA-SU-MI |  |  |
| :---: | :---: | :---: |
| MA-SU | SU-MI |  |

Table 162.2.1. Combination of clusters from KN 22c (a)

### 3.163 Artefact KN 32a

Transcription of Linear A characters on artefact KN 32a yielded strings under two distinct rows of clusters:
a. $|A-P A|$
b. A-KA-TA $\mid$

KiN $\boldsymbol{\sigma}_{\mathbf{1}}$


Image 163. Standardised inscription of KN 32a, obtained from GORILA 1

### 3.163.1 Common Semitic / Middle Egyptian

A-P

Table 163.1.1. Combination of clusters from KN 32a (a)

|  | A-K-T |
| :---: | :---: |
| A-K | K-T |

Table 163.1.2. Combination of clusters from KN 32a (b)
3.163.2 Hittite

A-PA
Table 163.2.1. Combination of clusters from KN 32a (a)

| A-KA-TA |  |
| :---: | :---: |
| A-KA KA-TA |  |

Table 163.2.2. Combination of clusters from KN 32a (b)

### 3.164 Artefact KN 32b

Transcription of Linear A characters on artefact KN 32b yielded strings under two distinct rows of clusters:
a. $\mid$ SA -PU $\mid$
b. |JA-SU
liN mab


Image 164. Standardised inscription of KN 32b, obtained from GORILA 1

### 3.164.1 Common Semitic / Middle Egyptian

S-P
Table 164.1.1. Combination of clusters from KN 32b (a)

## J-S

Table 164.1.2. Combination of clusters from KN 32b (b)
3.164.2 Hittite

SA-PU
Table 164.2.1. Combination of clusters from KN 32b (a)

## JA-SU

Table 164.2.2. Combination of clusters from KN 32b (b)

### 3.165 Artefact MA Ia

Transcription of Linear A characters on artefact MA la yielded strings under one distinct row of clusters:
a. I-DU-WI $\mid$ QE-DE-MI-NU

MA In

Image 165. Standardised inscription of MA Aa, obtained from GORILA 1

### 3.165.1 Common Semitic / Middle Egyptian

| I-D-W |  |  |  |
| :---: | :---: | :---: | :---: |
| I-D | Q-D-M-N | D-W |  |
| Q-D-M | Q-D | D-M |  |
| D-M-N | M-N |  |  |

Table 165.1.1. Combination of clusters from MA 1a (a)
3.165.2 Hittite

| I-DU-WI |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| I-DU | QE-DE-MI-NU | DU-WI |  |  |
| QE-DE |  |  |  | DE-MI |
| QE-DE-MI | MI-NU |  |  |  |
| DE-MI-NU | MI-NU |  |  |  |

Table 165.2.1. Combination of clusters from MA 1a (a)

### 3.166 Artefact MA 1b

Transcription of Linear A characters on artefact MA 1b yielded strings under two distinct rows of clusters:
a. A-MA \| QE-DE-MI-NU

MA (l)

$$
\left(\begin{array}{l}
(\infty)
\end{array}\right)
$$

Image 166. Standardised inscription of MA 1 b , obtained from GORILA 1

### 3.166.1 Common Semitic / Middle Egyptian

| A-M |  |  |
| :---: | :---: | :---: |
| Q-D-M-N |  |  |
| Q-D-M | Q-D | D-M |
| D-M-N | M-N |  |

Table 166.1.1. Combination of clusters from MA 1b (a)

### 3.166.2 Hittite

| A-MA |  |  |
| :---: | :---: | :---: |
| QE-DE-MI-NU |  |  |
| QE-DE-MI | QE-DE | DE-MI |
| DE-MI-NU | MI-NU |  |

Table 166.2.1. Combination of clusters from MA 1b (a)

### 3.167 Artefact MA Ra

Transcription of Linear A characters on artefact MA La yielded a string under one distinct row of cluster:
a. DDU-RA

MA $\mathbf{q u}_{\mathbf{1}}$

Image 167. Standardised inscription of MA aa, obtained from GORILA 1
3.167.1 Common Semitic / Middle Egyptian
DeR

Table 167.1.1. Combination of clusters from MA Ra (a)

### 3.167.2 Hittite

## DURRA

Table 167.2.1. Combination of clusters from MA aa (a)

### 3.168 Artefact MA 2b

Transcription of Linear A characters on artefact MA ab yielded strings under two distinct rows of clusters:
a. $\mid$ RE-TI $\mid$
b. $|\mathrm{JA}-\mathrm{KU}|$

MA $\boldsymbol{g}_{\boldsymbol{\prime}}$
a ] $-(\psi n)^{\text {I" }} \quad[$

Image 168. Standardised inscription of MA 2 b , obtained from GORILA 1

### 3.168.1 Common Semitic / Middle Egyptian

## R-T

Table 168.1.1. Combination of clusters from MA ab (a)

## J-K

Table 168.1.2. Combination of clusters from MA pb (b)

### 3.168.2 Hittite

## RE-TI

Table 168.2.1. Combination of clusters from MA Rb (a)

## JA－KU

Table 168．2．2．Combination of clusters from MA 2b（b）

## 3．169 Artefact MA 2c

Transcription of Linear A characters on artefact MA 2c yielded strings under two distinct rows of clusters：
a．｜U－NA－NA
b．｜JA－MA－U－TI
MA ©

$$
\begin{aligned}
& \text { : 自桇个目"" }
\end{aligned}
$$

Image 169．Standardised inscription of MA 2c，obtained from GORILA 1

3．169．1 Common Semitic／Middle Egyptian

| U－N－N |  |
| :---: | :---: |
| U－N | N－N |

Table 169．1．1．Combination of clusters from MA 2c（a）

| J－M－U－T |  |  |
| :---: | :---: | :---: |
| J－M－U | J－M | M－U |
| M－U－T | U－T |  |

Table 169．1．2．Combination of clusters from MA 2c（b）

3．169．2 Hittite

| U－NA－NA |  |
| :---: | :---: |
| U－NA NA－NA |  |

Table 169．2．1．Combination of clusters from MA 2c（a）

| JA－MA－U－TI |  |  |  |
| :---: | :---: | :---: | :---: |
| JA－MA－U | JA－MA | MA－U |  |
| MA－U－TI | U－TI |  |  |

Table 169．2．2．Combination of clusters from MA 2c（b）

## 3．170 Artefact PK 1

Transcription of Linear A characters on artefact PK 1 yielded strings under seven distinct rows of clusters：
a．｜NE－TI $\mid$ KA－QA $\mid$
b. A-DU-ZA |TA-TA-RE $\mid$
c. TA-TI-TE $|\mathrm{O}-\mathrm{KA}-\mathrm{MI}-\mathrm{ZA}-\mathrm{SI}-\mathrm{I}-\mathrm{NA}|$
d. O-TE-JA |
e. RA-NA-TU-SU | NI-MI | TU
f. SU|MA-TI-ZA-I-TE $\mid$
g. MA-TE-TI|MA-KA-I-TA

PK 4


Image 170. Standardised inscription of PK 1, obtained from GORILA 1

### 3.170.1 Common Semitic / Middle Egyptian

| $\mathbf{N}-\mathbf{T}$ |
| :--- |
| $\mathbf{K - Q}$ |

Table 170.1.1. Combination of clusters from PK 1 (a)

| A-D-Z |  |  |
| :---: | :---: | :---: |
| A-D |  | D-Z |
| T-T-R |  |  |
| T-T | T-R |  |

Table 170.1.2. Combination of clusters from PK 1 (b)

| T-T-T |  |  |
| :---: | :---: | :---: |
| T-T |  | O-K-M-Z-S-I-N |
| O-K-M-Z-S-I | O-K-M-Z-S | T-T |
| O-K-M | O-K | O-K-M-Z |
| K-M-Z-S-I | K-M-Z-S | K-M-Z-S-I-N |
| K-M | M-Z-S-I-N | K-M-Z |
| M-Z-S | M-Z | M-Z-S-I |
| Z-S-I | Z-S | Z-S-I-N |
| S-I | I-N | S-I-N |

Table 170.1.3. Combination of clusters from PK 1 (c)

| O-T-J |  |
| :---: | :---: |
| O-T | T-J |

Table 170.1.4. Combination of clusters from PK 1 (d)

| R-N-T-S |  |  |
| :---: | :---: | :---: |
| R-N-T | R-N | N-T |
| N-T-S | T-S |  |
| N-M |  |  |

Table 170.1.5. Combination of clusters from PK 1 (e)

## T-S

Table 170.1.6. Combination of clusters from PK 1 (e)-(f)

| M-T-Z-I-T |  |  |
| :---: | :---: | :---: |
| M-T-Z-I | M-T-Z | M-T |
| T-Z-I-T | T-Z-I | T-Z |
| Z-I-T | Z-I | I-T |

Table 170.1.7. Combination of clusters from PK 1 (f)

| M-T-T |  |  |  |
| :---: | :---: | :---: | :---: |
| M-T |  |  |  |
| M-K-I-T | T-T |  |  |
| K-I-T | M-K |  |  |

Table 170.1.8. Combination of clusters from PK 1 (g)

### 3.170.2 Hittite

| NE-TI |
| ---: |
| KA-QA |

Table 170.2.1. Combination of clusters from PK 1 (a)

| A-DU-ZA |  |  |
| :---: | :---: | :---: |
| A-DU |  | DU-ZA |
|  | TA-TA-RE |  |
| TA-TA |  | TA-RE |

Table 170.2.2. Combination of clusters from PK 1 (b)

| TA-TI-TE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| TA-TI |  |  |  | O-KA-MI-ZA-SI-I-NA |
| O-KA-MI-ZA-SI-I | O-KA-MI-ZA-SI | O-KA-MI-ZA |  |  |
| O-KA-MI | O-KA | KA-MI-ZA-SI-I-NA |  |  |
| KA-MI-ZA-SI-I | KA-MI-ZA-SI | KA-MI-ZA |  |  |


| KA-MI | MI-ZA-SI-I-NA | MI-ZA-SI-I |
| :---: | :---: | :---: |
| MI-ZA-SI | MI-ZA | ZA-SI-I-NA |
| ZA-SI-I | ZA-SI | SI-I-NA |
| SI-I | I-NA |  |

Table 170.2.3. Combination of clusters from PK 1 (c)

| O-TE-JA |  |
| :---: | :---: |
| O-TE | TE-JA |

Table 170.2.4. Combination of clusters from PK 1 (d)

| RA-NA-TU-SU |  |  |
| :---: | :---: | :---: |
| RA-NA-TU | RA-NA | NA-TU |
| NA-TU-SU | TU-SU |  |
| NI-MI |  |  |

Table 170.2.5. Combination of clusters from PK 1 (e)

## TU-SU

Table 170.2.6. Combination of clusters from PK 1 (e)-(f)

| MA-TI-ZA-I-TE |  |  |
| :---: | :---: | :---: |
| MA-TI-ZA-I | MA-TI-ZA | MA-TI |
| TI-ZA-I-TE | TI-ZA-I | TI-ZA |
| ZA-I-TE | ZA-I | I-TE |

Table 170.2.7. Combination of clusters from PK 1 (f)

| MA-TE-TI |  |  |  |
| :---: | :---: | :---: | :---: |
| MA-TE | MA-KA-I-TA | TE-TI |  |
| MA-KA-I | MA-KA | KA-I |  |
| KA-I-TA | I-TA |  |  |

Table 170.2.8. Combination of clusters from PK 1 (g)

### 3.171 Artefact PA 1

Transcription of Linear A characters on artefact PA 1 yielded a string under one distinct row of cluster:
a. A-KU-JU-PA *118

12 1

$$
\begin{aligned}
& \text { - }\left(\begin{array}{ll}
\Pi^{\prime} & 3
\end{array} \mathfrak{k} \neq \Delta \Delta\right) \\
& 2 \text { ミ "". }
\end{aligned}
$$

Image 171. Standardised inscription of PA 1, obtained from GORILA 1

### 3.171.1 Common Semitic / Middle Egyptian

| A-K-J-P |  |  |
| :---: | :---: | :---: |
| A-K-J | A-K | K-J |
| K-J-P | J-P |  |

Table 171.1.1. Combination of clusters from PA 1 (a)

### 3.171.2 Hittite

| A-KU-JU-PA |  |  |
| :---: | :---: | :---: |
| A-KU-JU | A-KU | KU-JU |
| KU-JU-PA | JU-PA |  |

Table 171.2.1. Combination of clusters from PA 1 (a)

### 3.172 Artefact PH 1a

Transcription of Linear A characters on artefact PH 1a yielded a string under one distinct row of cluster:
a. |DI-RA-DI-NA *316|

1 HII It
.1


$$
2181 F 1 \psi_{\lambda}
$$

$$
3 \quad]_{\text {vesr. }}
$$

Image 172. Standardised inscription of PH 1a, obtained from GORILA 1

### 3.172.1 Common Semitic / Middle Egyptian

| D-R-D-N |  |  |
| :---: | :---: | :---: |
| D-R-D | D-R | R-D |
| R-D-N | D-N |  |

Table 172.1.1. Combination of clusters from PH 1a (a)
3.172.2 Hittite

| DI-RA-DI-NA |  |  |
| :---: | :---: | :---: |
| DI-RA-DI | DI-RA | RA-DI |
| RA-DI-NA | DI-NA |  |

Table 172.2.1. Combination of clusters from PH 1a (a)

### 3.173 Artefact PH 2

Transcription of Linear A characters on artefact PH 2 yielded strings under four distinct rows of clusters:
a. A-SE-TU-QI|RA
b. O-DI-KI|
c. PI-RU-E-JU |
d. SE-SA-PA

PH $\mathbf{I}$

$$
\begin{aligned}
& 3(\triangle) \leftarrow A \mid \Lambda):: \\
& 4(シ Y \text { FI) }:: \text { : }
\end{aligned}
$$

Image 173. Standardised inscription of PH 2, obtained from GORILA 1

### 3.173.1 Common Semitic / Middle Egyptian

| A-S-T-Q |  |  |
| :---: | :---: | :---: |
| A-S-T | A-S | S-T |
| S-T-Q | T-Q |  |

Table 173.1.1. Combination of clusters from PH 2 (a)

| R-O-D-K |  |  |
| :---: | :---: | :---: |
| R-O-D | R-O | O-D |
| O-D-K | D-K |  |

Table 173.1.2. Combination of clusters from PH 2 (a)-(b)

| P-R-E-J |  |  |
| :---: | :---: | :---: |
| P-R-E | P-R | R-E |
| R-E-J | E-J |  |

Table 173.1.3. Combination of clusters from PH 2 (c)

| S-S-P |  |
| :---: | :---: |
| S-S | S-P |

Table 173.1.4. Combination of clusters from PH 2 (d)

### 3.173.2 Hittite

| A-SE-TU-QI |  |  |
| :---: | :---: | :---: |
| A-SE-TU | A-SE | SE-TU |
| SE-TU-QI | TU-QI |  |

Table 173.2.1. Combination of clusters from PH 2 (a)

| RA-O-DI-KI |  |  |
| :---: | :---: | :---: |
| RA-O-DI | RA-O | O-DI |
| O-DI-KI | DI-KI |  |

Table 173.2.2. Combination of clusters from PH 2 (a)-(b)

| PI-RU-E-JU |  |  |  |
| :---: | :---: | :---: | :---: |
| PI-RU-E | PI-RU | RU-E |  |
| RU-E-JU | E-JU |  |  |

Table 173.2.3. Combination of clusters from PH 2 (c)

| SE-SA-PA |  |
| :---: | :---: |
| SE-SA | SA-PA |

Table 173.2.4. Combination of clusters from PH 2 (d)

### 3.174 Artefact PH 3a

Transcription of Linear A characters on artefact PH 3a yielded a string under one distinct row of cluster:
a. $\mid$ PA-RA $\mid$

19 Ka


Image 174. Standardised inscription of PH 3a, obtained from GORILA 1
3.174.1 Common Semitic / Middle Egyptian

P-R
Table 174.1.1. Combination of clusters from PH 3a (a)
3.174.2 Hittite

## PA-RA

Table 174.2.1. Combination of clusters from PH 3a (a)

### 3.175 Artefact PH 6

Transcription of Linear A characters on artefact PH 6 yielded strings under four distinct rows of clusters:
a. I-NA-WA |A-RI
b. I-ZU-RI-NI-TA
c. A-RI
d. I-DA-PA-I-SA-RI


Image 175. Standardised inscription of PH 6, obtained from GORILA 1
3.175.1 Common Semitic / Middle Egyptian

| I-N-W |  |
| :---: | :---: |
| I-N | N-W |

Table 175.1.1. Combination of clusters from PH 6 (a)

| A-R-I-Z-R-N-T-A-R |  |  |
| :---: | :---: | :---: |
| A-R-I-Z-R-N-T-A | A-R-I-Z-R-N-T | A-R-I-Z-R-N |
| A-R-I-Z-R | A-R-I-Z | A-R-I |
| A-R | R-I-Z-R-N-T-A-R | R-I-Z-R-N-T-A |
| R-I-Z-R-N-T | R-I-Z-R-N | R-I-Z-R |
| R-I-Z | R-I | I-Z-R-N-T-A-R |
| I-Z-R-N-T-A | I-Z-R-N-T | I-Z-R-N |
| I-Z-R | I-Z | Z-R-N-T-A-R |
| Z-R-N-T-A | Z-R-N-T | Z-R-N |
| Z-R | R-N-T-A-R | R-N-T-A |
| R-N-T | R-N | N-T-A-R |
| N-T-A | N-T | T-A-R |
| T-A | A-R |  |

Table 175.1.2. Combination of clusters from PH 6 (a)-(c)

| I-D-P-I-S-R |  |  |
| :---: | :---: | :---: |
| I-D-P-I-S | I-D-P-I | I-D-P |
| I-D | D-P-I-S-R | D-P-I-S |
| D-P-I | D-P | P-I-S-R |
| P-I-S | P-I | I-S-R |
| I-S | S-R |  |

Table 175.1.3. Combination of clusters from PH 6 (d)

### 3.175.2 Hittite

| I-NA-WA |  |
| :---: | :---: |
| I-NA | NA-WA |

Table 175.2.1. Combination of clusters from PH 6 (a)

| A-RI-I-ZU-RI-NI-TA-A-RI |  |  |
| :---: | :---: | :---: |
| A-RI-I-ZU-RI-NI-TA-A | A-RI-I-ZU-RI-NI-TA | A-RI-I-ZU-RI-NI |


| A－RI－I－ZU－RI | A－RI－I－ZU | A－RI－I |
| :---: | :---: | :---: |
| A－RI | RI－I－ZU－RI－NI－TA－A－RI | RI－I－ZU－RI－NI－TA－A |
| RI－I－ZU－RI－NI－TA | RI－I－ZU－RI－NI | RI－I－ZU－RI |
| RI－I－ZU | RI－I | I－ZU－RI－NI－TA－A－RI |
| I－ZU－RI－NI－TA－A | I－ZU－RI－NI－TA | I－ZU－RI－NI |
| I－ZU－RI | I－ZU | ZU－RI－NI－TA－A－RI |
| ZU－RI－NI－TA－A | ZU－RI－NI－TA | ZU－RI－NI |
| ZU－RI | RI－NI－TA－A－RI | RI－NI－TA－A |
| RI－NI－TA | RI－NI | NI－TA－A－RI |
| NI－TA－A | NI－TA | TA－A－RI |
| TA－A | A－RI |  |

Table 175．2．2．Combination of clusters from PH 6 （a）－（c）

| I－DA－PA－I－SA－RI |  |  |
| :---: | :---: | :---: |
| I－DA－PA－I－SA | I－DA－PA－I | I－DA－PA |
| I－DA | DA－PA－I－SA－RI | DA－PA－I－SA |
| DA－PA－I | DA－PA | PA－I－SA－RI |
| PA－I－SA | PA－I | I－SA－RI |
| I－SA | SA－RI |  |

Table 175．2．3．Combination of clusters from PH 6 （d）

## 3．176 Artefact PH 7a

Transcription of Linear A characters on artefact PH 7a yielded strings under four distinct rows of clusters：
a．DI－PA－JA｜
b．U－DI－RI－KI｜
c．JA－RU－MA－NE
d．JA－SI－DA－RA｜
PH $\mathbf{2 l}$

$$
\begin{aligned}
& 1(\bar{\because}+\theta)[ \\
& 2\left(f \bar{\because} 2, \nabla^{\lambda}\right)[
\end{aligned}
$$

$$
\begin{aligned}
& 4(\text { 日 山 卜 } 2 \text { ) } \text { [ }
\end{aligned}
$$

Image 176．Standardised inscription of PH 7a，obtained from GORILA 1

## 3．176．1 Common Semitic／Middle Egyptian

| D－P－J |  |
| :---: | :---: |
| D－P | P－J |

Table 176．1．1．Combination of clusters from PH 7a（a）

| U-D-R-K |  |  |
| :---: | :---: | :---: |
| U-D-R | U-D | D-R |
| D-R-K | R-K |  |

Table 176.1.2. Combination of clusters from PH 7a (b)

| J-R-M-N |  |  |
| :---: | :---: | :---: |
| J-R-M | J-R | R-M |
| R-M-N | M-N |  |

Table 176.1.3. Combination of clusters from PH 7a (c)

| J-S-D-R |  |  |
| :---: | :---: | :---: |
| J-S-D | J-S | S-D |
| S-D-R | D-R |  |

Table 176.1.4. Combination of clusters from PH 7a (d)

### 3.176.2 Hittite

| DI-PA-JA |  |
| :---: | :---: |
| DI-PA PA-JA |  |

Table 176.2.1. Combination of clusters from PH 7a (a)

| U-DI-RI-KI |  |  |
| :---: | :---: | :---: |
| U-DI-RI | U-DI | DI-RI |
| DI-RI-KI | RI-KI |  |

Table 176.2.2. Combination of clusters from PH 7a (b)

| JA-RU-MA-NE |  |  |
| :---: | :---: | :---: |
| JA-RU-MA | JA-RU | RU-MA |
| RU-MA-NE | MA-NE |  |

Table 176.2.3. Combination of clusters from PH 7a (c)

| JA-SI-DA-RA |  |  |
| :---: | :---: | :---: |
| JA-SI-DA | JA-SI | SI-DA |
| SI-DA-RA | DA-RA |  |

Table 176.2.4. Combination of clusters from PH 7a (d)

### 3.177 Artefact PH 7b

Transcription of Linear A characters on artefact PH 7b yielded a string under one distinct row of cluster:
a. DA-RA


Image 177．Standardised inscription of PH 7b，obtained from GORILA 1

3．177．1 Common Semitic／Middle Egyptian
D－R
Table 177．1．1．Combination of clusters from PH 7b（a）

3．177．2 Hittite

## DA－RA

Table 177．2．1．Combination of clusters from PH 7b（a）

## 3．178 Artefact PH 13c

Transcription of Linear A characters on artefact PH 13c yielded a string under one distinct row of cluster：
a． $\mid$ TE－ZU $\mid$

## PH 100

了川》斯
Image 178．Standardised inscription of PH 13c，obtained from GORILA 1

3．178．1 Common Semitic／Middle Egyptian
T－Z
Table 178．1．1．Combination of clusters from PH 13c（a）

3．178．2 Hittite

## TE－ZU

Table 178．2．1．Combination of clusters from PH 13c（a）

## 3．179 Artefact PH 14b

Transcription of Linear A characters on artefact PH 14b yielded a string under one distinct row of cluster：
a．A－MI｜

Image 179. Standardised inscription of PH 14b, obtained from GORILA 1
3.179.1 Common Semitic / Middle Egyptian
A-M

Table 179.1.1. Combination of clusters from PH 14b (a)
3.179.2 Hittite
A-MI

Table 179.2.1. Combination of clusters from PH 14b (a)

### 3.180 Artefact PH 15a

Transcription of Linear A characters on artefact PH 15a yielded a string under one distinct row of cluster:
a. |MA-TE-RE *339

PH lisa


Image 180. Standardised inscription of PH 15a, obtained from GORILA 1
3.180.1 Common Semitic / Middle Egyptian

| M-T-R |  |
| :---: | :---: |
| M-T | T-R |

Table 180.1.1. Combination of clusters from PH 15a (a)
3.180.2 Hittite

| MA-TE-RE |  |
| :---: | :---: |
| MA-TE | TE-RE |

Table 180.2.1. Combination of clusters from PH 15a (a)

### 3.181 Artefact PH 16a

Transcription of Linear A characters on artefact PH 16a yielded a string under one distinct row of cluster:
a. $\mid$ TI-NA $\mid$

PH Mia


Image 181. Standardised inscription of PH 16a, obtained from GORILA 1

### 3.181.1 Common Semitic / Middle Egyptian

## T-N

Table 181.1.1. Combination of clusters from PH 16a (a)

### 3.181.2 Hittite

## TI-NA

Table 181.2.1. Combination of clusters from PH 16a (a)

### 3.182 Artefact PH 16b

Transcription of Linear A characters on artefact PH 16b yielded a string under one distinct row of cluster:
a. $\mid$ JA-SA $\mid$
$1 P I I$ 16)


Image 182. Standardised inscription of PH 16b, obtained from GORILA 1

### 3.182.1 Common Semitic / Middle Egyptian

J-S

Table 182.1.1. Combination of clusters from PH 16b (a)
3.182.2 Hittite

## JA-SA

Table 182.2.1. Combination of clusters from PH 16b (a)

### 3.183 Artefact PH 18a

Transcription of Linear A characters on artefact PH 18a yielded a string under one distinct row of cluster:
a. |WI-JA

PH 18in
1


Image 183. Standardised inscription of PH 18a, obtained from GORILA 1
3.183.1 Common Semitic / Middle Egyptian

W-J
Table 183.1.1. Combination of clusters from PH 18a (a)

## WI-JA

Table 183.2.1. Combination of clusters from PH 18a (a)

### 3.184 Artefact PH 19

Transcription of Linear A characters on artefact PH 19 yielded a string under one distinct row of cluster:
a. $\mathrm{PI}-\mathrm{O} \mid$

PHI 18)


Image 184. Standardised inscription of PH 19, obtained from GORILA 1

### 3.184.1 Common Semitic / Middle Egyptian

## P-O

Table 184.1.1. Combination of clusters from PH 19 (a)

### 3.184.2 Hittite

## PISO

Table 184.2.1. Combination of clusters from PH 19 (a)

### 3.185 Artefact PH 24

Transcription of Linear A characters on artefact PH 24 yielded a string under one distinct row of cluster:
a. RO-E

PHI 9.


Image 185. Standardised inscription of PH 24, obtained from GORILA 1

### 3.185.1 Common Semitic / Middle Egyptian

## R-E

Table 185.1.1. Combination of clusters from PH 24 (a)
3.185.2 Hittite

## ROBE

Table 185.2.1. Combination of clusters from PH 24 (a)

### 3.186 Artefact PH 28a

Transcription of Linear A characters on artefact PH 28a yielded strings under three distinct rows of clusters:
a. A-PA |
b. JA-KI-PA |
c. A-RI-JA|

1PII 日8!


### 3.186.1 Common Semitic / Middle Egyptian

## A-P

Table 186.1.1. Combination of clusters from PH 28a (a)

|  | J-K-P |
| :---: | :---: |
| J-K | K-P |

Table 186.1.2. Combination of clusters from PH 28a (b)

| A-R-J |  |
| :---: | :---: |
| A-R R-J |  |

Table 186.1.3. Combination of clusters from PH 28a (c)

### 3.186.2 Hittite

## A-PA

Table 186.2.1. Combination of clusters from PH 28a (a)

| JA-KI-PA |  |
| :---: | :---: |
| JA-KI | KI-PA |

Table 186.2.2. Combination of clusters from PH 28a (b)

| A-RI-JA |  |
| :---: | :---: |
| A-RI | RI-JA |

Table 186.2.3. Combination of clusters from PH 28a (c)

### 3.187 Artefact PH 30

Transcription of Linear A characters on artefact PH 30 yielded a string under one distinct row of cluster:
a. MA-RE-RI-MI-DE |

PII 30


Image 187. Standardised inscription of PH 30, obtained from GORILA 1
3.187.1 Common Semitic / Middle Egyptian

| M-R-R-M-D |  |  |
| :---: | :---: | :---: |
| M-R-R-M | M-R-R | M-R |
| R-R-M-D | R-R-M | R-R |
| R-M-D | R-M | M-D |

Table 187.1.1. Combination of clusters from PH 30 (a)

### 3.187.2 Hittite

| MA-RE-RI-MI-DE |  |  |
| :---: | :---: | :---: |
| MA-RE-RI-MI | MA-RE-RI | MA-RE |
| RE-RI-MI-DE | RE-RI-MI | RE-RI |
| RI-MI-DE | RI-MI | MI-DE |

Table 187.2.1. Combination of clusters from PH 30 (a)

### 3.188 Artefact PH(?) 31a

Transcription of Linear A characters on artefact $\mathrm{PH}(?)$ 31a yielded strings under three distinct rows of clusters:
a. $|\mathrm{MA}-\mathrm{DI}|$
b. |KU-PA-NU-RE |PA-TA-DA
c. $\mid \mathrm{KU}-\mathrm{RO} * 513$

PII (? ? ) क्नh


Image 188. Standardised inscription of $\mathrm{PH}(?)$ 31a, obtained from GORILA 1

### 3.188.1 Common Semitic / Middle Egyptian

## M-D

Table 188.1.1. Combination of clusters from $\mathrm{PH}(?)$ 31a (a)

| K-P-N-R |  |  |
| :---: | :---: | :---: |
| K-P-N | K-P | P-N |
| P-N-R | N-R |  |
| P-T |  |  |

Table 188.1.2. Combination of clusters from $\mathrm{PH}($ ? $) 31 \mathrm{a}$ (b)

## K-R

Table 188.1.3. Combination of clusters from $\mathrm{PH}($ ? $) 31 \mathrm{a}$ (c)
3.188.2 Hittite

MA-DI
Table 188.2.1. Combination of clusters from PH(?) 31a (a)

| KU-PA-NU-RE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| KU-PA-NU | KU-PA | PA-NU |  |  |  |
| PA-NU-RE | NU-RE |  |  |  |  |
| PA-TA |  |  |  |  | TA-DA |

Table 188.2.2. Combination of clusters from $\mathrm{PH}($ ? $)$ 31a (b)

## KU-RO

Table 188.2.3. Combination of clusters from $\mathrm{PH}($ ? $)$ 31a (c)

### 3.189 Artefact PH(?) 31b

Transcription of Linear A characters on artefact $\mathrm{PH}($ ?) 31b yielded strings under four distinct rows of clusters:
a. $\mid$ DU-RI $\mid$
b. $\mid$ TE-RI $\mid$
c. $\mid$ RU-MA-TI $\mid$
d. A-MI-DA-O

## PH(?) क्षाb



Image 189. Standardised inscription of $\mathrm{PH}(?) 31 \mathrm{~b}$, obtained from GORILA 1

### 3.189.1 Common Semitic / Middle Egyptian

D-R
Table 189.1.1. Combination of clusters from $\mathrm{PH}(?)$ 31b (a)

## T-R

Table 189.1.2. Combination of clusters from $\mathrm{PH}(?)$ 31b (b)

| R-M-T |  |
| :---: | :---: | :---: |
| R-M | M-T |

Table 189.1.3. Combination of clusters from $\mathrm{PH}(?)$ 31b ©

| A-M-D-O |  |  |
| :---: | :---: | :---: |
| A-M-D | A-M | M-D |
| M-D-O | D-O |  |

Table 189.1.4. Combination of clusters from $\mathrm{PH}(?)$ 31b (d)
3.189.2 Hittite

## DU-RI

Table 189.2.1. Combination of clusters from $\mathrm{PH}(?)$ 31b (a)

## TE-RI

Table 189.2.2. Combination of clusters from $\mathrm{PH}(?)$ 31b (b)

| RU-MA-TI |  |
| :---: | :---: | :---: |
| RU-MA | MA-TI |

Table 189.2.3. Combination of clusters from $\mathrm{PH}(?)$ 31b (c)

| A-MI-DA-O |  |  |
| :---: | :---: | :---: |
| A-MI-DA | A-MI | MI-DA |
| MI-DA-O | DA-O |  |

Table 189.2.4. Combination of clusters from $\mathrm{PH}(?)$ 31b (d)

### 3.190 Artefact PYR 1

Transcription of Linear A characters on artefact PYR 1 yielded a string under one distinct row of cluster:
a. TI-MA-RU-WI-TE

PYR 1

Image 190. Standardised inscription of PYR 1, obtained from GORILA 1
3.190.1 Common Semitic / Middle Egyptian

| T-M-R-W-T |  |  |
| :---: | :---: | :---: |
| T-M-R-W | T-M-R | T-M |
| M-R-W-T | M-R-W | M-R |
| R-W-T | R-W | W-T |

Table 190.1.1. Combination of clusters from PYR 1 (a)

### 3.190.2 Hittite

| TI-MA-RU-WI-TE |  |  |
| :---: | :---: | :---: |
| TI-MA-RU-WI | TI-MA-RU | TI-MA |
| MA-RU-WI-TE | MA-RU-WI | MA-RU |
| RU-WI-TE | RU-WI | WI-TE |

Table 190.2.1. Combination of clusters from PYR 1 (a)

### 3.191 Artefact TY 2

Transcription of Linear A characters on artefact TY 2 yielded strings under three distinct rows of clusters:
a. $\mid$ PU-PI $\mid$
b. PA
c. DA
'TY


Image 191. Standardised inscription of TY 2, obtained from GORILA 1
3.191.1 Common Semitic / Middle Egyptian

PeP
Table 191.1.1. Combination of clusters from TY 2 (a)

## P-D

Table 191.1.2. Combination of clusters from TY 2 (b)-(c)
3.191.2 Hittite

## PU-PI

Table 191.2.1. Combination of clusters from TY 2 (a)

## PA-DA

Table 191.2.2. Combination of clusters from TY 2 (b)-(c)

### 3.192 Artefact TY Ba

Transcription of Linear A characters on artefact TY 3a yielded strings under six distinct rows of clusters:
a. $\mid \mathrm{NE}$
b. $\mathrm{KI} \mid$
c. $A-D U \mid$
d. A-DA |
e. KO-A-DU-WA |
f. A-KU-TU


Image 192. Standardised inscription of TY 3a, obtained from GORILA 1

### 3.192.1 Common Semitic / Middle Egyptian

## N-K

Table 192.1.1. Combination of clusters from TY 3a (a)-(b)

## A-D

Table 192.1.2. Combination of clusters from TY 3a (c)

## A-D

Table 192.1.3. Combination of clusters from TY 3a (d)

| K-A-D-W |  |  |
| :---: | :---: | :---: |
| K-A-D | K-A | A-D |
| A-D-W | D-W |  |

Table 192.1.4. Combination of clusters from TY 3a (e)

| A-K-T |  |
| :---: | :---: |
| A-K | K-T |

Table 192.1.5. Combination of clusters from TY 3a (f)

### 3.192.2 Hittite

## NE-KI

Table 192.2.1. Combination of clusters from TY 3a (a)-(b)

## A-DU

Table 192.2.2. Combination of clusters from TY 3a (c)

## A-DA

Table 192.2.3. Combination of clusters from TY 3a (d)

| KO-A-DU-WA |  |  |
| :---: | :---: | :---: |
| KO-A-DU | KO-A | A-DU |
| A-DU-WA | DU-WA |  |

Table 192.2.4. Combination of clusters from TY 3a (e)

| A-KU-TU |  |
| :---: | :---: |
| A-KU | KU-TU |

Table 192.2.5. Combination of clusters from TY 3a (f)

### 3.193 Artefact TY 3b

Transcription of Linear A characters on artefact TY 3b yielded strings under two distinct rows of clusters:
a. KI-RI-SI|
b. PI-KU-ZU


Image 193. Standardised inscription of TY 3b, obtained from GORILA 1

### 3.193.1 Common Semitic / Middle Egyptian

| K-R-S |  |
| :---: | :---: |
| K-R | R-S |

Table 193.1.1. Combination of clusters from TY 3b (a)

| P-K-Z |  |
| :---: | :---: |
| P-K | K-Z |

Table 193.1.2. Combination of clusters from TY 3b (b)

### 3.193.2 Hittite

| KI-RI-SI |  |
| :---: | :---: |
| KI-RI | RI-SI |

Table 193.2.1. Combination of clusters from TY 3b (a)

|  | PI-KU-ZU |
| :---: | :---: |
| PI-KU | KU-ZU |

Table 193.2.2. Combination of clusters from TY 3b (b)

### 3.194 Artefact ZA 1a

Transcription of Linear A characters on artefact ZA 1a yielded a string under one distinct row of cluster:
a. |KI-RE-ZA |
\%at $\mathbf{~ I t}$


Image 194. Standardised inscription of ZA 1a, obtained from GORILA 1
3.194.1 Common Semitic / Middle Egyptian

| K-R-Z |  |
| :---: | :---: |
| K-R | R-Z |

Table 194.1.1. Combination of clusters from ZA 1a (a)
3.194.2 Hittite

| KI-RE-ZA |  |
| :---: | :---: |
| KI-RE | RE-ZA |

Table 194.2.1. Combination of clusters from ZA 1a (a)

### 3.195 Artefact ZA 1b

Transcription of Linear A characters on artefact ZA 1b yielded a string under one distinct row of cluster:
a. $\mathrm{E}-\mathrm{MI} \mid$

ZA (1)


Image 195. Standardised inscription of ZA 1b, obtained from GORILA 1

### 3.195.1 Common Semitic / Middle Egyptian

## E-M

Table 195.1.1. Combination of clusters from ZA 1b (a)

## E-MI

Table 195.2.1. Combination of clusters from ZA 1b (a)

### 3.196 Artefact GO Wc 1a

Transcription of Linear A characters on artefact GO Wc 1a yielded strings under three distinct rows of clusters:
a. A-SA
b. SU-MA
c. I-SE

GO We 1


Image 196. Standardised inscription of GO Wc 1a, obtained from GORILA 1

### 3.196.1 Common Semitic / Middle Egyptian

Table 196.1.1. Combination of clusters from GO Wc 1a (a)

## S-M

Table 196.1.2. Combination of clusters from GO Wc 1a (b)

I-S
Table 196.1.3. Combination of clusters from GO Wc 1a (c)

### 3.196.2 Hittite

## A-SA

Table 196.2.1. Combination of clusters from GO Wc 1a (a)

## SU-MA

Table 196.2.2. Combination of clusters from GO Wc 1a (b)

## I-SE

Table 196.2.3. Combination of clusters from GO Wc 1a (c)

### 3.197 Artefact ARKH 1a

Transcription of Linear A characters on artefact ARKH 1a yielded strings under five distinct rows of clusters:
a. $\mid$ TA-PI $\mid$
b. $|A-R A|$
c. A-SU-MI *118|
d. $|\mathrm{A}-\mathrm{PA}|$
e. MI-KI-SA-NE |


Image 197. Standardised inscription of ARKH 1a, obtained from GORILA 3
3.197.1 Common Semitic / Middle Egyptian

T-P
Table 197.1.1. Combination of clusters from ARKH 1a (a)

## A-R

Table 197.1.2. Combination of clusters from ARKH 1a (b)

| A-S-M |  |
| :---: | :---: |
| A-S | S-M |

Table 197.1.3. Combination of clusters from ARKH 1a (c)

## A-P

Table 197.1.4. Combination of clusters from ARKH 1a (d)

| M-K-S-N |  |  |
| :---: | :---: | :---: |
| M-K-S | M-K | K-S |
| K-S-N | S-N |  |

Table 197.1.5. Combination of clusters from ARKH 1a (e)

## TA-PI

Table 197.2.1. Combination of clusters from ARKH 1a (a)

## A-RA

Table 197.2.2. Combination of clusters from ARKH 1a (b)

|  | A-SU-MI |
| :---: | :---: | :---: |
| A-SU | SU-MI |

Table 197.2.3. Combination of clusters from ARKH 1a (c)

## A-PA

Table 197.2.4. Combination of clusters from ARKH 1a (d)

| MI-KI-SA-NE |  |  |
| :---: | :---: | :---: |
| MI-KI-SA | MI-KI | KI-SA |
| KI-SA-NE | SA-NE |  |

Table 197.2.5. Combination of clusters from ARKH 1a (e)

### 3.198 Artefact ARKH 1b

Transcription of Linear A characters on artefact ARKH 1b yielded a string under one distinct row of cluster:
a. $\mid$ PA-RE $\mid$


Image 198. Standardised inscription of ARKH 1b, obtained from GORILA 3
3.198.1 Common Semitic / Middle Egyptian

## P-R

Table 198.1.1. Combination of clusters from ARKH 1b (a)
3.198.2 Hittite

PA-RE
Table 198.2.1. Combination of clusters from ARKH 1b (a)

## 3．199 Artefact ARKH 2

Transcription of Linear A characters on artefact ARKH 2 yielded strings under six distinct rows of clusters：
a．SI－DA－TE｜KU－RA
b．｜A－SI－DA－TO
c． $\mathrm{I} \mid \mathrm{ZU} * 301 \mathrm{SE}$
d．DE－QI＊118｜
e．A－SU－PU－WA
f． $\mid$ RU－MI $\mid$
AHKII 9

$$
\begin{aligned}
& \therefore(4+y=)=3 t) \\
& 2 \text { 下 III [HFFF }
\end{aligned}
$$

$$
\begin{aligned}
& 4\left[\begin{array}{ll}
4 & 4 \\
\frac{1}{x} & \frac{1}{\Delta \Delta}
\end{array}\right] \\
& \text {. } 5 \text { ( } 4 \text { 已 } \mathbb{1} \pi \text { 而) }
\end{aligned}
$$

Image 199．Standardised inscription of ARKH 2，obtained from GORILA 3

3．199．1 Common Semitic／Middle Egyptian

| S－D－T |  |  |
| :---: | :---: | :---: |
| S－D | D－T |  |
|  | K－R |  |

Table 199．1．1．Combination of clusters from ARKH 2 （a）

| A－S－D－T－I |  |  |
| :---: | :---: | :---: |
| A－S－D－T | A－S－D | A－S |
| S－D－T－I | S－D－T | S－D |
| D－T－I | D－T | T－I |

Table 199．1．2．Combination of clusters from ARKH 2 （b）－（c）

## D－Q

Table 199．1．3．Combination of clusters from ARKH 2 （d）

| A－S－P－W |  |  |
| :---: | :---: | :---: |
| A－S－P | A－S | S－P |
| S－P－W | P－W |  |

Table 199．1．4．Combination of clusters from ARKH 2 （e）

## R-M

Table 199.1.5. Combination of clusters from ARKH 2 (f)
3.199.2 Hittite

| SI-DA-TE |  |  |
| :---: | :---: | :---: |
| SI-DA | DA-TE |  |
| KU-RA |  |  |

Table 199.2.1. Combination of clusters from ARKH 2 (a)

| A-SI-DA-TO-I |  |  |
| :---: | :---: | :---: |
| A-SI-DA-TO | A-SI-DA | A-SI |
| SI-DA-TO-I | SI-DA-TO | SI-DA |
| DA-TO-I | DA-TO | TO-I |

Table 199.2.2. Combination of clusters from ARKH 2 (b)-(c)

## DE-QI

Table 199.2.3. Combination of clusters from ARKH 2 (d)

| A-SU-PU-WA |  |  |
| :---: | :---: | :---: |
| A-SU-PU | A-SU | SU-PU |
| SU-PU-WA | PU-WA |  |

Table 199.2.4. Combination of clusters from ARKH 2 (e)

## RU-MI

Table 199.2.5. Combination of clusters from ARKH 2 (f)

### 3.200 Artefact ARKH 3a

Transcription of Linear A characters on artefact ARKH 3a yielded strings under two distinct rows of clusters:
a. $|\mathrm{KA}-\mathrm{NE}|$
b. KI-NU |

Aliill $\mathbf{3}$


Image 200. Standardised inscription of ARKH 3a, obtained from GORILA 3
3.200.1 Common Semitic / Middle Egyptian

K-N
Table 200.1.1. Combination of clusters from ARKH 3a (a)
$\square$
K-N
Table 200.1.2. Combination of clusters from ARKH 3a (b)
3.200.2 Hittite

## KA-NE

Table 200.2.1. Combination of clusters from ARKH 3a (a)

## KI-NU

Table 200.2.2. Combination of clusters from ARKH 3a (b)

### 3.201 Artefact ARKH 3b

Transcription of Linear A characters on artefact ARKH 3b yielded strings under two distinct rows of clusters:
a. JJA-PI
b. |PI-PU

ANKII あb


Image 201. Standardised inscription of ARKH 3b, obtained from GORILA 3

### 3.201.1 Common Semitic / Middle Egyptian

Table 201.1.1. Combination of clusters from ARKH 3b (a)

## P-P

Table 201.1.2. Combination of clusters from ARKH 3b (b)

## JA-PI

Table 201.2.1. Combination of clusters from ARKH $3 b$ (a)

## PI-PU

Table 201.2.2. Combination of clusters from ARKH 3b (b)

### 3.202 Artefact ARKH 4a

Transcription of Linear A characters on artefact ARKH 4a yielded strings under four distinct rows of clusters:
a. $\mid$ NI-TA $\mid$
b. $\mid$ DE-SU $\mid$
c. $\mid$ PI-TI-NE
d. A

ARIKH SAt


Image 202. Standardised inscription of ARKH 4a, obtained from GORILA 3
3.202.1 Common Semitic / Middle Egyptian

## N-T

Table 202.1.1. Combination of clusters from ARKH 4a (a)

## D-S

Table 202.1.2. Combination of clusters from ARKH 4a (b)

| P-T-N-A |  |  |
| :---: | :---: | :---: |
| P-T-N | P-T | T-N |
| T-N-A | N-A |  |

Table 202.1.3. Combination of clusters from ARKH 4a (c)-(d)

## NI-TA

Table 202.2.1. Combination of clusters from ARKH 4a (a)

## DE-SU

Table 202.2.2. Combination of clusters from ARKH 4a (b)

| PI-TI-NE-A |  |  |
| :---: | :---: | :---: |
| PI-TI-NE | PI-TI | TI-NE |
| TI-NE-A | NE-A |  |

Table 202.2.3. Combination of clusters from ARKH 4a (c)-(d)

### 3.203 Artefact ARKH 4b

Transcription of Linear A characters on artefact ARKH 4b yielded strings under three distinct rows of clusters:
a. |DE-MI $\mid$ I-*47|
b. $|A-K I-R O|$
c. $\mathrm{ZA}-\mathrm{SI}-\mathrm{ZU} \mid$

ARIII (b)


Image 203. Standardised inscription of ARKH 4b, obtained from GORILA 3

### 3.203.1 Common Semitic / Middle Egyptian

## D-M

Table 203.1.1. Combination of clusters from ARKH 4b (a)

| A-K-R |  |
| :---: | :---: |
| A-K | K-R |

Table 203.1.2. Combination of clusters from ARKH 4b (b)

| Z-S-Z |  |
| :---: | :---: |
| Z-S | S-Z |

Table 203.1.3. Combination of clusters from ARKH 4b ©

## DE-MI

Table 203.2.1. Combination of clusters from ARKH 4b (a)

|  | A-KI-RO |
| :---: | :---: |
| A-KI | KI-RO |

Table 203.2.2. Combination of clusters from ARKH 4b (b)

| ZA-SI-ZU |  |
| :---: | :---: |
| ZA-SI | SI-ZU |

Table 203.2.3. Combination of clusters from ARKH 4b (c)

### 3.204 Artefact ARKH 5

Transcription of Linear A characters on artefact ARKH 5 yielded strings under two distinct rows of clusters:
a. A-DU-NI-TA-NA |
b. A-DA-RO

ARIKI :


Image 204. Standardised inscription of ARKH 5, obtained from GORILA 3

### 3.204.1 Common Semitic / Middle Egyptian

| A-D-N-T-N |  |  |
| :---: | :---: | :---: |
| A-D-N-T | A-D-N | A-D |
| D-N-T-N | D-N-T | D-N |
| N-T-N | N-T | T-N |

Table 204.1.1. Combination of clusters from ARKH 5 (a)

| A-D-R |  |
| :---: | :---: |
| A-D | D-R |

Table 204.1.2. Combination of clusters from ARKH 5 (b)
3.204.2 Hittite

| A-DU-NI-TA-NA |  |  |
| :---: | :---: | :---: |
| A-DU-NI-TA | A-DU-NI | A-DU |


| DU-NI-TA-NA | DU-NI-TA | DU-NI |
| :---: | :---: | :---: |
| NI-TA-NA | NI-TA | TA-NA |

Table 204.2.1. Combination of clusters from ARKH 5 (a)

| A-DA-RO |  |  |
| :---: | :---: | :---: |
| A-DA | DA-RO |  |

Table 204.2.2. Combination of clusters from ARKH 5 (b)

### 3.205 Artefact ARKH 6

Transcription of Linear A characters on artefact ARKH 6 yielded strings under two distinct rows of clusters:
a. DA-NA-TU |
b. $\mid$ TE-RI $\mid$

ARKII 6

$$
\begin{aligned}
& 1 \text { ( } \mathrm{f} \mathrm{i} \mathrm{z} \text { ) } 3 \\
& 2 \text { ( } 4 \text { 2) }
\end{aligned}
$$

Image 205. Standardised inscription of ARKH 6, obtained from GORILA 3

### 3.205.1 Common Semitic / Middle Egyptian

| D-N-T |  |
| :---: | :---: |
| D-N | N-T |

Table 205.1.1. Combination of clusters from ARKH 6 (a)

## T-R

Table 205.1.2. Combination of clusters from ARKH 6 (b)

### 3.205.2 Hittite

| DA-NA-TU |  |
| :---: | :---: |
| DA-NA | NA-TU |

Table 205.2.1. Combination of clusters from ARKH 6 (a)

## TE-RI

Table 205.2.2. Combination of clusters from ARKH 6 (b)

### 3.206 Artefact KH 4

Transcription of Linear A characters on artefact KH 4 yielded a string under one distinct row of cluster:
a. A-DU-RE

IIII ${ }^{\prime}$

$$
\begin{aligned}
& \left.{ }_{1}(T 7) \psi\right)[ \\
& { }_{2} G_{1}=11 \leqslant+[ \\
& 3 \text { Jestigian }
\end{aligned}
$$

Image 206．Standardised inscription of KH 4，obtained from GORILA 3

3．206．1 Common Semitic／Middle Egyptian

| A－D－R |  |
| :---: | :---: |
| A－D | D－R |

Table 206．1．1．Combination of clusters from KH 4 （a）

3．206．2 Hittite

| A－DU－RE |  |
| :---: | :---: |
| A－DU | DU－RE |

Table 206．2．1．Combination of clusters from KH 4 （a）

## 3．207 Artefact KH 5

Transcription of Linear A characters on artefact KH 5 yielded strings under three distinct rows of clusters：
a．A－DA－KI－SI－KA｜A－RA－U
b．DA｜WI－SA－SA－NE＊626｜
c．WI－NA－DU｜＊301 NA｜KU－PA－ZU
KII ： $\mathbf{3}$

$$
\begin{aligned}
& \text {. }[T \vdash \notin 4 \theta),\left[T_{2} / F\right.
\end{aligned}
$$

$$
\begin{aligned}
& 3[(\in \bar{i} 7)!(x \quad \bar{i})!(s \neq 7) \\
& 4 \text { 狺コC! ! ! } \quad \neq *_{1} * \mid<+
\end{aligned}
$$

Image 207．Standardised inscription of KH 5，obtained from GORILA 3

3．207．1 Common Semitic／Middle Egyptian

| A－D－K－S－K |  |  |
| :---: | :---: | :---: |
| A－D－K－S | A－D－K | A－D |
| D－K－S－K | D－K－S | D－K |
| K－S－K | K－S | S－K |

Table 207．1．1．Combination of clusters from KH 5 （a）

| A-R-U-D |  |  |
| :---: | :---: | :---: |
| A-R-U | A-R | R-U |
| R-U-D | U-D |  |

Table 207.1.2. Combination of clusters from KH 5 (a)-(b)

| W-S-S-N |  |  |
| :---: | :---: | :---: |
| W-S-S | W-S | S-S |
| S-S-N | S-N |  |

Table 207.1.3. Combination of clusters from KH 5 (b)

| W-N-D |  |  |
| :---: | :---: | :---: |
| W-N |  | N-D |
| K-P-Z | P-Z |  |

Table 207.1.4. Combination of clusters from KH 5 (c)

### 3.207.2 Hittite

| A-DA-KI-SI-KA |  |  |
| :---: | :---: | :---: |
| A-DA-KI-SI | A-DA-KI | A-DA |
| DA-KI-SI-KA | DA-KI-SI | DA-KI |
| KI-SI-KA | KI-SI | SI-KA |

Table 207.2.1. Combination of clusters from KH 5 (a)

| A-RA-U-DA |  |  |
| :---: | :---: | :---: |
| A-RA-U | A-RA | RA-U |
| RA-U-DA | U-DA |  |

Table 207.2.2. Combination of clusters from KH 5 (a)-(b)

| WI-SA-SA-NE |  |  |
| :---: | :---: | :---: |
| WI-SA-SA | WI-SA | SA-SA |
| SA-SA-NE | SA-NE |  |

Table 207.2.3. Combination of clusters from KH 5 (b)

| WI-NA-DU |  |  |
| :---: | :---: | :---: |
| WI-NA | NA-DU |  |
| KU-PA | KU-PA-ZU |  |

Table 207.2.4. Combination of clusters from KH 5 (c)

### 3.208 Artefact KH 6

Transcription of Linear A characters on artefact KH 6 yielded strings under six distinct rows of clusters:
a. $\mid$ DI-SI $\mid$
b. |TE-NU-RE $\mid$
c. |KI-SA-NE *624|
d. |RI-TA-JE *624|
e. $\mid$ PI-SA $\mid$
f. $|A-U-R E-T E|$

KH 6


Image 208. Standardised inscription of KH 6, obtained from GORILA 3

### 3.208.1 Common Semitic / Middle Egyptian

## D-S

Table 208.1.1. Combination of clusters from KH 6 (a)

| T-N-R |  |
| :---: | :---: |
| T-N | N-R |

Table 208.1.2. Combination of clusters from KH 6 (b)

| K-S-N |  |
| :---: | :---: |
| K-S | S-N |

Table 208.1.3. Combination of clusters from KH 6 (c)

| R-T-J |  |
| :---: | :---: |
| R-T | T-J |

Table 208.1.4. Combination of clusters from KH 6 (d)

## P-S

Table 208.1.5. Combination of clusters from KH 6 (e)

| A-U-R-T |  |  |
| :---: | :---: | :---: |
| A-U-R | A-U | U-R |

U-R-T $\quad$ R-T

Table 208.1.6. Combination of clusters from KH 6 (f)
3.208.2 Hittite

## DI-SI

Table 208.2.1. Combination of clusters from KH 6 (a)

|  | TE-NU-RE |  |
| :---: | :---: | :---: |
| TE-NU | NU-RE |  |

Table 208.2.2. Combination of clusters from KH 6 (b)

| KI-SA-NE |  |
| :---: | :---: |
| KI-SA | SA-NE |

Table 208.2.3. Combination of clusters from KH 6 (c)

|  | RI-TA-JE |
| :---: | :---: |
| RI-TA | TA-JE |

Table 208.2.4. Combination of clusters from KH 6 (d)

## PI-SA

Table 208.2.5. Combination of clusters from KH 6 (e)

| A-U-RE-TE |  |  |
| :---: | :---: | :---: |
| A-U-RE | A-U | U-RE |
| U-RE-TE | RE-TE |  |

Table 208.2.6. Combination of clusters from KH 6 (f)

### 3.209 Artefact KH 7a

Transcription of Linear A characters on artefact KH 7a yielded strings under four distinct rows of clusters:
a. |E-NA-SI|
b. |I-JA-PA-ME |TA-TA|
c. QA-TI-KI *571 | SE *305|
d. |KO-E *571

## IKII ZII

$$
\begin{aligned}
& 6 \text { ] }+\langle\equiv \equiv
\end{aligned}
$$

Image 209. Standardised inscription of KH 7a, obtained from GORILA 3

### 3.209.1 Common Semitic / Middle Egyptian

| E-N-S |  |
| :---: | :---: |
| E-N | N-S |

Table 209.1.1. Combination of clusters from KH 7a (a)

| I-J-P-M |  |  |
| :---: | :---: | :---: |
| I-J-P | I-J | J-P |
| J-P-M | P-M |  |
| T-T |  |  |

Table 209.1.2. Combination of clusters from KH 7a (b)

| Q-T-K |  |
| :---: | :---: |
| Q-T | T-K |

Table 209.1.3. Combination of clusters from KH 7a (c)

## K-E

Table 209.1.4. Combination of clusters from KH 7a (d)
3.209.2 Hittite

| E-NA-SI |  |
| :---: | :---: |
| E-NA | NA-SI |

Table 209.2.1. Combination of clusters from KH 7a (a)

| I-JA-PA-ME |  |  |  |
| :---: | :---: | :---: | :---: |
| I-JA-PA | I-JA | JA-PA |  |
| JA-PA-ME | PA-ME |  |  |
| TA-TA |  |  |  |

Table 209.2.2. Combination of clusters from KH 7a (b)

| QA-TI-KI |  |
| :---: | :---: |
| QA-TI TI-KI |  |

Table 209.2.3. Combination of clusters from KH 7a (c)

## KO-E

Table 209.2.4. Combination of clusters from KH 7a (d)

### 3.210 Artefact KH 7b

Transcription of Linear A characters on artefact KH 7b yielded strings under two distinct rows of clusters:
a. U-TA-I-SE *624|PA-NA
b. TU *624

Kill Zl)


Image 210. Standardised inscription of KH 7b, obtained from GORILA 3
3.210.1 Common Semitic / Middle Egyptian

| U-T-I-S |  |  |
| :---: | :---: | :---: |
| U-T-I | U-T | T-I |
| T-I-S | I-S |  |

Table 210.1.1. Combination of clusters from KH 7b (a)

| P-N-T |  |
| :---: | :---: |
| P-N | N-T |

Table 210.1.2. Combination of clusters from KH 7b (b)

### 3.210.2 Hittite

| U-TA-I-SE |  |  |
| :---: | :---: | :---: |
| U-TA-I | U-TA | TA-I |
| TA-I-SE | I-SE |  |

Table 210.2.1. Combination of clusters from KH 7b (a)

## PA-NA-TU

PA-NA
NA-TU
Table 210.2.2. Combination of clusters from KH 7b (b)

### 3.211 Artefact KH 9

Transcription of Linear A characters on artefact KH 9 yielded strings under two distinct rows of clusters:
a. A-SI-SU-PO-A
b. I-SI|

IIII 9


Image 211. Standardised inscription of KH 9, obtained from GORILA 3

### 3.211.1 Common Semitic / Middle Egyptian

| A-S-S-P-A |  |  |
| :---: | :---: | :---: |
| A-S-S-P | A-S-S | A-S |
| S-S-P-A | S-S-P | S-S |
| S-P-A | S-P | P-A |

Table 211.1.1. Combination of clusters from KH 9 (a)

## I-S

Table 211.1.2. Combination of clusters from KH 9 (b)
3.211.2 Hittite

| A-SI-SU-PO-A |  |  |  |
| :---: | :---: | :---: | :---: |
| A-SI-SU-PO | A-SI-SU | A-SI |  |
| SI-SU-PO-A | SI-SU-PO | SI-SU |  |
| SU-PO-A | SU-PO | PO-A |  |

Table 211.2.1. Combination of clusters from KH 9 (a)

## I-SI

Table 211.2.2. Combination of clusters from KH 9 (b)

### 3.212 Artefact KH 10

Transcription of Linear A characters on artefact KH 10 yielded strings under two distinct rows of clusters:
a. I-PA-SA-JA|QA *118|A-KI-PI
b. E-TE

IKI 10


Image 212. Standardised inscription of KH 10, obtained from GORILA 3
3.212.1 Common Semitic / Middle Egyptian

| I-P-S-J |  |  |
| :---: | :---: | :---: |
| I-P-S | I-P | P-S |
| P-S-J | S-J |  |

Table 212.1.1. Combination of clusters from KH 10 (a)

| A-K-P-E-T |  |  |
| :---: | :---: | :---: |
| A-K-P-E | A-K-P | A-K |
| K-P-E-T | K-P-E | K-P |
| P-E-T | P-E | E-T |

Table 212.1.2. Combination of clusters from KH 10 (a)-(b)
3.212.2 Hittite

| I-PA-SA-JA |  |  |
| :---: | :---: | :---: |
| I-PA-SA | I-PA | PA-SA |
| PA-SA-JA | SA-JA |  |

Table 212.2.1. Combination of clusters from KH 10 (a)

| A-KI-PI-E-TE |  |  |
| :---: | :---: | :---: |
| A-KI-PI-E | A-KI-PI | A-KI |
| KI-PI-E-TE | KI-PI-E | KI-PI |
| PI-E-TE | PI-E | E-TE |

Table 212.2.2. Combination of clusters from KH 10 (a)-(b)

### 3.213 Artefact KH 11

Transcription of Linear A characters on artefact KH 11 yielded strings under three distinct rows of clusters:
a. A-DU |ZA *303|
b. A-TO *349 TO-I $* 626$
c. $\mid \mathrm{A}-\mathrm{TE} * 350$

LII H


Image 213. Standardised inscription of KH 11, obtained from GORILA 3

### 3.213.1 Common Semitic / Middle Egyptian

## A-D

Table 213.1.1. Combination of clusters from KH 11 (a)

| A-T |
| :---: |
| T-I |

Table 213.1.2. Combination of clusters from KH 11 (b)

## A-T

Table 213.1.3. Combination of clusters from KH 11 (c)

### 3.213.2 Hittite

## A-DU

Table 213.2.1. Combination of clusters from KH 11 (a)

| A-TO |
| :---: |
| TO-I |

Table 213.2.2. Combination of clusters from KH 11 (b)

## A-TE

Table 213.2.3. Combination of clusters from KH 11 (c)

### 3.214 Artefact KH 13

Transcription of Linear A characters on artefact KH 13 yielded strings under two distinct rows of clusters:
a. A-SE-RE-ZA
b. |DA-I

KII 15


Image 214. Standardised inscription of KH 13, obtained from GORILA 3
3.214.1 Common Semitic / Middle Egyptian

| A-S-R-Z |  |  |
| :---: | :---: | :---: |
| A-S-R | A-S | S-R |
| S-R-Z | R-Z |  |

Table 214.1.1. Combination of clusters from KH 13 (a)

## D-I

Table 214.1.2. Combination of clusters from KH 13 (b)

### 3.214.2 Hittite

| A-SE-RE-ZA |  |  |
| :---: | :---: | :---: |
| A-SE-RE | A-SE | SE-RE |
| SE-RE-ZA | RE-ZA |  |

Table 214.2.1. Combination of clusters from KH 13 (a)

## DA-I

Table 214.2.2. Combination of clusters from KH 13 (b)

### 3.215 Artefact KH 14

Transcription of Linear A characters on artefact KH 14 yielded a string under one distinct row of cluster:
a. A-MA-JA

Hil 14


Image 215. Standardised inscription of KH 14, obtained from GORILA 3

### 3.215.1 Common Semitic / Middle Egyptian

| A-M-J |  |
| :---: | :---: |
| A-M | M-J |

Table 215.1.1. Combination of clusters from KH 14 (a)

### 3.215.2 Hittite

| A-MA-JA |  |
| :---: | :---: |
| A-MA | MA-JA |

Table 215.2.1. Combination of clusters from KH 14 (a)

### 3.216 Artefact KH 16

Transcription of Linear A characters on artefact KH 16 yielded a string under one distinct row of cluster:
a. | U-TA-I-SI *624

KII 16


Image 216. Standardised inscription of KH 16, obtained from GORILA 3

### 3.216.1 Common Semitic / Middle Egyptian

| U-T-I-S |  |  |
| :---: | :---: | :---: |
| U-T-I | U-T | T-I |
| T-I-S | I-S |  |

Table 216.1.1. Combination of clusters from KH 16 (a)

| U-TA-I-SI |  |  |
| :---: | :---: | :---: |
| U-TA-I | U-TA | TA-I |
| TA-I-SI | I-SI |  |

Table 216.2.1. Combination of clusters from KH 16 (a)

### 3.217 Artefact KH 18

Transcription of Linear A characters on artefact KH 18 yielded a string under one distinct row of cluster:
a. $|I-K U-P I|$

Kill 18


Image 217. Standardised inscription of KH 18, obtained from GORILA 3

### 3.217.1 Common Semitic / Middle Egyptian

| $\mathbf{I}-\mathrm{K}-\mathrm{P}$ |  |
| :---: | :---: |
| $\mathrm{I}-\mathrm{K}$ | K-P |

Table 217.1.1. Combination of clusters from KH 18 (a)

### 3.217.2 Hittite

| I-KU-PI |  |
| :---: | :---: |
| $\mathrm{I}-\mathrm{KU}$ | KU-PI |

Table 217.2.1. Combination of clusters from KH 18 (a)

### 3.218 Artefact KH 20

Transcription of Linear A characters on artefact KH 20 yielded strings under two distinct rows of clusters:
a. A-SI-KI-RA |
b. $\mid$ DU-RE-ZA $\mid$


Image 218. Standardised inscription of KH 20, obtained from GORILA 3
3.218.1 Common Semitic / Middle Egyptian

| A-S-K-R |  |  |
| :---: | :---: | :---: |
| A-S-K | A-S | S-K |
| S-K-R | K-R |  |

Table 218.1.1. Combination of clusters from KH 20 (a)

| D-R-Z |  |
| :---: | :---: |
| D-R | R-Z |

Table 218.1.2. Combination of clusters from KH 20 (b)
3.218.2 Hittite

| A-SI-KI-RA |  |  |
| :---: | :---: | :---: |
| A-SI-KI | A-SI | SI-KI |
| SI-KI-RA | KI-RA |  |

Table 218.2.1. Combination of clusters from KH 20 (a)

| DU-RE-ZA |  |
| :---: | :---: |
| DU-RE | RE-ZA |

Table 218.2.2. Combination of clusters from KH 20 (b)

### 3.219 Artefact KH 23

Transcription of Linear A characters on artefact KH 23 yielded a string under one distinct row of cluster:
a. A-DU |

Kill $\mathbf{9 5}$

Image 219. Standardised inscription of KH 23, obtained from GORILA 3

## A-D

Table 219.1.1. Combination of clusters from KH 23 (a)
3.219.2 Hittite

## A-DU

Table 219.2.1. Combination of clusters from KH 23 (a)

### 3.220 Artefact KH 29

Transcription of Linear A characters on artefact KH 29 yielded a string under one distinct row of cluster:
a. $\mid$ KU-PA $\mid$

KII (9)


Image 220. Standardised inscription of KH 29, obtained from GORILA 3
3.220.1 Common Semitic / Middle Egyptian
K-P

Table 220.1.1. Combination of clusters from KH 29 (a)

### 3.220.2 Hittite

## KU-PA

Table 220.2.1. Combination of clusters from KH 29 (a)

### 3.221 Artefact KH 39

Transcription of Linear A characters on artefact KH 39 yielded a string under one distinct row of cluster:
a. A-TA |

Kill $8!$

$$
\begin{array}{ll}
1 & (T C) \\
2 & Z_{1}[
\end{array}
$$

Image 221. Standardised inscription of KH 39, obtained from GORILA 3

## A-T

Table 221.1.1. Combination of clusters from KH 39 (a)
3.221.2 Hittite

## A-TA

Table 221.2.1. Combination of clusters from KH 39 (a)

### 3.222 Artefact KH 40

Transcription of Linear A characters on artefact KH 40 yielded a string under one distinct row of cluster:
a. $\mid$ SI-NA $\mid$

IVII 40


Image 222. Standardised inscription of KH 40, obtained from GORILA 3

### 3.222.1 Common Semitic / Middle Egyptian

S-N

Table 222.1.1. Combination of clusters from KH 40 (a)

### 3.222.2 Hittite

## SI-NA

Table 222.2.1. Combination of clusters from KH 40 (a)

### 3.223 Artefact KH 41

Transcription of Linear A characters on artefact KH 41 yielded a string under one distinct row of cluster:
a. |KA-TA-RE

KII $\mathbf{H}$


Image 223. Standardised inscription of KH 41, obtained from GORILA 3

### 3.223.1 Common Semitic / Middle Egyptian

| K-T-R |  |
| :---: | :---: |
| K-T | T-R |

Table 223.1.1. Combination of clusters from KH 41 (a)

| KA-TA-RE |  |
| :---: | :---: |
| KA-TA TA-RE |  |

Table 223.2.1. Combination of clusters from KH 41 (a)

### 3.224 Artefact KH 47

Transcription of Linear A characters on artefact KH 47 yielded a string under one distinct row of cluster:
a. QA-NE

Kill $\mathbf{4 Z}$


Image 224. Standardised inscription of KH 47, obtained from GORILA 3

### 3.224.1 Common Semitic / Middle Egyptian

## Q-N

Table 224.1.1. Combination of clusters from KH 47 (a)
3.224.2 Hittite

## QA-NE

Table 224.2.1. Combination of clusters from KH 47 (a)

### 3.225 Artefact KH 51

Transcription of Linear A characters on artefact KH 51 yielded a string under one distinct row of cluster:
a. $\mid$ SI-I-SI $\mid$

## KII : 61



Image 225. Standardised inscription of KH 51, obtained from GORILA 3

### 3.225.1 Common Semitic / Middle Egyptian

## S-I-S

S－I

Table 225．1．1．Combination of clusters from KH 51 （a）

3．225．2 Hittite

|  | SI－I－SI |
| :---: | :---: |
| SI－I | I－SI |

Table 225．2．1．Combination of clusters from KH 51 （a）

## 3．226 Artefact KH 52

Transcription of Linear A characters on artefact KH 52 yielded a string under one distinct row of cluster：
a．$|T A-U|$
Kill ：39


Image 226．Standardised inscription of KH 52，obtained from GORILA 3

## 3．226．1 Common Semitic／Middle Egyptian

## T－U

Table 226．1．1．Combination of clusters from KH 52 （a）

3．226．2 Hittite
TA－U
Table 226．2．1．Combination of clusters from KH 52 （a）

## 3．227 Artefact KH 53

Transcription of Linear A characters on artefact KH 53 yielded a string under one distinct row of cluster：
a．｜A－ME＊ 123
Kill $\mathbf{3 5}$

$$
][T: 中 \text { 包 }] \text { 王 }[
$$

Image 227．Standardised inscription of KH 53，obtained from GORILA 3

## 3．227．1 Common Semitic／Middle Egyptian

## A－M

Table 227．1．1．Combination of clusters from KH 53 （a）

## A-ME

Table 227.2.1. Combination of clusters from KH 53 (a)

### 3.228 Artefact KH 59

Transcription of Linear A characters on artefact KH 59 yielded a string under one distinct row of cluster:
a. $\mid$ DI-NA $\mid$

KII : $\%$


Image 228. Standardised inscription of KH 59, obtained from GORILA 3
3.228.1 Common Semitic / Middle Egyptian

D-N
Table 228.1.1. Combination of clusters from KH 59 (a)

### 3.228.2 Hittite

## DI-NA

Table 228.2.1. Combination of clusters from KH 59 (a)

### 3.229 Artefact KH 60

Transcription of Linear A characters on artefact KH 60 yielded a string under one distinct row of cluster:
a. |RA-KI-TA-NA-SI|

Kill 60


Image 229. Standardised inscription of KH 60, obtained from GORILA 3

### 3.229.1 Common Semitic / Middle Egyptian

| R-K-T-N-S |  |  |
| :---: | :---: | :---: |
| R-K-T-N | R-K-T | R-K |
| K-T-N-S | K-T-N | K-T |
| T-N-S | T-N | N-S |

Table 229.1.1. Combination of clusters from KH 60 (a)

### 3.229.2 Hittite

| RA-KI-TA-NA-SI |  |  |
| :---: | :---: | :---: |
| RA-KI-TA-NA | RA-KI-TA | RA-KI |
| KI-TA-NA-SI | KI-TA-NA | KI-TA |
| TA-NA-SI | TA-NA | NA-SI |

Table 229.2.1. Combination of clusters from KH 60 (a)

### 3.230 Artefact KH 74

Transcription of Linear A characters on artefact KH 74 yielded a string under one distinct row of cluster:
a. JJA-DA-SU

Kill 2b
1 J
.2
] 4 RD

Image 230. Standardised inscription of KH 74, obtained from GORILA 3
3.230.1 Common Semitic / Middle Egyptian

| J-D-S |  |  |
| :---: | :---: | :---: |
| J-D | D-S |  |

Table 230.1.1. Combination of clusters from KH 74 (a)

### 3.230.2 Hittite

| JA-DA-SU |  |
| :---: | :---: |
| JA-DA DA-SU |  |

Table 230.2.1. Combination of clusters from KH 74 (a)

### 3.231 Artefact KH 79

Transcription of Linear A characters on artefact KH 79 yielded a string under one distinct row of cluster:
a. $\mid$ PA-DA $\mid$

IIII 7!


Image 231. Standardised inscription of KH 79, obtained from GORILA 3

### 3.231.1 Common Semitic / Middle Egyptian

## P-D

Table 231.1.1. Combination of clusters from KH 79 (a)

### 3.231.2 Hittite

## PA-DA

Table 231.2.1. Combination of clusters from KH 79 (a)

### 3.232 Artefact KH 83

Transcription of Linear A characters on artefact KH 83 yielded a string under one distinct row of cluster:
a. $\mid$ A-DI-NE $\mid$

IHI $\mathbf{3 5}$

Image 232. Standardised inscription of KH 83, obtained from GORILA 3

### 3.232.1 Common Semitic / Middle Egyptian

| A-D-N |  |
| :---: | :---: |
| A-D | D-N |

Table 232.1.1. Combination of clusters from KH 83 (a)

### 3.232.2 Hittite

| A-DI-NE |  |
| :---: | :---: |
| A-DI | DI-NE |

Table 232.2.1. Combination of clusters from KH 83 (a)

### 3.233 Artefact KH 86

Transcription of Linear A characters on artefact KH 86 yielded strings under two distinct rows of clusters:
a. |RE-ZA *303|
b. $|\mathrm{PI}-\mathrm{NU}|$

```
Kil :8%
    * [4 P i=]
    2 琣持衁胙
    3 ]"'14后紅
```

Image 233．Standardised inscription of KH 86，obtained from GORILA 3

3．233．1 Common Semitic／Middle Egyptian
$\square$
R－Z
Table 233．1．1．Combination of clusters from KH 86 （a）
$\square$
P－N
Table 233．1．2．Combination of clusters from KH 86 （b）

3．233．2 Hittite

## RE－ZA

Table 233．2．1．Combination of clusters from KH 86 （a）

## PI－NU

Table 233．2．2．Combination of clusters from KH 86 （b）

## 3．234 Artefact ZA 4a

Transcription of Linear A characters on artefact ZA 4a yielded strings under seven distinct rows of clusters：
a．JJA－TO－JA
b． $\mid$ A－TI－RU $\mid J A$
c．PA $\mid$ TU－ME－SE $\mid$
d．QE－SI－ZU－E｜I
e．NU－MA－RE｜SI－PI
f． $\mathrm{KI}|\mathrm{E} * 82|$
g．KA－DI
\%as


Image 234. Standardised inscription of ZA 4a, obtained from GORILA 3

### 3.234.1 Common Semitic / Middle Egyptian

|  | J-T-J |
| :---: | :---: |
| J-T | T-J |

Table 234.1.1. Combination of clusters from ZA 4a (a)

| A-T-R |  |
| :---: | :---: |
| A-T | T-R |

Table 234.1.2. Combination of clusters from ZA 4a (b)

## J-P

Table 234.1.3. Combination of clusters from ZA 4a (b)-(c)

|  | T-M-S |
| :---: | :---: |
| T-M | M-S |

Table 234.1.4. Combination of clusters from ZA 4a (c)

| Q-S-Z-E |  |  |
| :---: | :---: | :---: |
| Q-S-Z | Q-S | S-Z |
| S-Z-E | Z-E |  |

Table 234.1.5. Combination of clusters from ZA 4a (d)

| I-N-M-R |  |  |
| :---: | :---: | :---: |
| I-N-M | I-N | N-M |
| N-M-R | M-R |  |

Table 234.1.6. Combination of clusters from ZA 4a (d)-(e)

| S-P-K |  |
| :---: | :---: |
| S-P | P-K |

Table 234.1.7. Combination of clusters from ZA 4a (e)-(f)

## K-D

Table 234.1.8. Combination of clusters from ZA 4a (g)

### 3.234.2 Hittite

| JA-TO-JA |  |  |
| :---: | :---: | :---: |
| JA-TO | TO-JA |  |

Table 234.2.1. Combination of clusters from ZA 4a (a)

| A-TI-RU |  |
| :---: | :---: | :---: |
| A-TI | TI-RU |

Table 234.2.2. Combination of clusters from ZA 4a (b)

## JA-PA

Table 234.2.3. Combination of clusters from ZA 4a (b)-(c)

| TU-ME-SE |  |  |
| :---: | :---: | :---: |
| TU-ME | ME-SE |  |

Table 234.2.4. Combination of clusters from ZA 4a (c)

| QE-SI-ZU-E |  |  |
| :---: | :---: | :---: |
| QE-SI-ZU | QE-SI | SI-ZU |
| SI-ZU-E | ZU-E |  |

Table 234.2.5. Combination of clusters from ZA 4 a (d)

| I-NU-MA-RE |  |  |
| :---: | :---: | :---: |
| I-NU-MA | I-NU | NU-MA |
| NU-MA-RE | MA-RE |  |

Table 234.2.6. Combination of clusters from ZA 4a (d)-(e)

|  | SI-PI-KI |
| :---: | :---: |
| SI-PI | PI-KI |

Table 234.2.7. Combination of clusters from ZA 4a (e)-(f)

## KA-DI

Table 234.2.8. Combination of clusters from ZA 4a (g)

### 3.235 Artefact ZA 5a

Transcription of Linear A characters on artefact ZA 5a yielded strings under three distinct rows of clusters:
a. $\mathrm{QI} * 118 \mid$ SU-KI-NI
b. MA |O-TA-NI-ZA
c. SE|SA-MI-DA-E

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Image 235. Standardised inscription of ZA 5a, obtained from GORILA 3
3.235.1 Common Semitic / Middle Egyptian

| S-K-N-M |  |  |
| :---: | :---: | :---: |
| S-K-N | S-K | K-N |
| K-N-M | N-M |  |

Table 235.1.1. Combination of clusters from ZA 5a (a)-(b)

| O-T-N-Z-S |  |  |
| :---: | :---: | :---: |
| O-T-N-Z | O-T-N | O-T |
| T-N-Z-S | T-N-Z | T-N |
| N-Z-S | N-Z | Z-S |

Table 235.1.2. Combination of clusters from ZA 5a (b)-(c)

| S-M-D-E |  |  |
| :---: | :---: | :---: |
| S-M-D | S-M | M-D |
| M-D-E | D-E |  |

Table 235.1.3. Combination of clusters from ZA 5a (c)
3.235.2 Hittite

| SU-KI-NI-MA |  |  |
| :---: | :---: | :---: |
| SU-KI-NI | SU-KI | KI-NI |
| KI-NI-MA | NI-MA |  |

Table 235.2.1. Combination of clusters from ZA 5a (a)-(b)

## O-TA-NI-ZA-SE

| O-TA-NI-ZA | O-TA-NI | O-TA |
| :---: | :---: | :---: |
| TA-NI-ZA-SE | TA-NI-ZA | TA-NI |
| NI-ZA-SE | NI-ZA | ZA-SE |

Table 235.2.2. Combination of clusters from ZA 5a (b)-(c)

| SA-MI-DA-E |  |  |
| :---: | :---: | :---: |
| SA-MI-DA | SA-MI | MI-DA |
| MI-DA-E | DA-E |  |

Table 235.2.3. Combination of clusters from ZA 5a (c)

### 3.236 Artefact ZA 5b

Transcription of Linear A characters on artefact ZA 5b yielded strings under three distinct rows of clusters:
a. I-NU-MA-RE
b. SI-PI-KI |MA-KA
c. I-TA
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Image 236. Standardised inscription of ZA 5b, obtained from GORILA 3

### 3.236.1 Common Semitic / Middle Egyptian

| I-N-M-R |  |  |
| :---: | :---: | :---: |
| I-N-M | I-N | N-M |
| N-M-R | M-R |  |

Table 236.1.1. Combination of clusters from ZA 5b (a)

|  | S-P-K |
| :---: | :---: |
| S-P | P-K |

Table 236.1.2. Combination of clusters from ZA 5b (b)

| M-K-I-T |  |  |
| :---: | :---: | :---: |
| M-K-I | M-K | K-I |
| K-I-T | I-T |  |

Table 236.1.3. Combination of clusters from ZA 5b (b)-(c)

| I-NU-MA-RE |  |  |
| :---: | :---: | :---: |
| I-NU-MA | I-NU | NU-MA |
| NU-MA-RE | MA-RE |  |

Table 236.2.1. Combination of clusters from ZA 5b (a)

| SI-PI-KI |  |
| :---: | :---: |
| SI-PI | PI-KI |

Table 236.2.2. Combination of clusters from ZA 5b (b)

| MA-KA-I-TA |  |  |
| :---: | :---: | :---: |
| MA-KA-I | MA-KA | KA-I |
| KA-I-TA | I-TA |  |

Table 236.2.3. Combination of clusters from ZA 5b (b)-(c)

### 3.237 Artefact ZA 6a

Transcription of Linear A characters on artefact ZA 6a yielded strings under five distinct rows of clusters:
a. *305 WA-NA * 171 | 34 JU
b. TE-MI |
c. $\mathrm{I}-\mathrm{SE} \mid$
d. $\mid$ PU-RA *574
e. |I-SE

ZA (6a


Image 237. Standardised inscription of ZA 6a, obtained from GORILA 3

### 3.237.1 Common Semitic / Middle Egyptian

## W-N

Table 237.1.1. Combination of clusters from ZA 6a (a)

|  | J-T-M |
| :---: | :---: |
| J-T | T-M |

Table 237.1.2. Combination of clusters from ZA 6a (a)-(b)

## I-S

Table 237.1.3. Combination of clusters from ZA 6a (c)

## P-R

Table 237.1.4. Combination of clusters from ZA 6a (d)

## I-S

Table 237.1.5. Combination of clusters from ZA 6a (e)

### 3.237.2 Hittite

## WA-NA

Table 237.2.1. Combination of clusters from ZA 6a (a)

|  | JU-TE-MI |
| :---: | :---: |
| JU-TE | TE-MI |

Table 237.2.2. Combination of clusters from ZA 6a (a)-(b)

## I-SE

Table 237.2.3. Combination of clusters from ZA 6a (c)

## PU-RA

Table 237.2.4. Combination of clusters from ZA 6a (d)

## I-SE

Table 237.2.5. Combination of clusters from ZA 6a (e)

### 3.238 Artefact ZA 6b

Transcription of Linear A characters on artefact ZA 6b yielded strings under three distinct rows of clusters:
a. I-KU-JU-TI-I *574 |
b. PA-ZA|
c. I-MA|


Image 238. Standardised inscription of ZA 6b, obtained from GORILA 3
3.238.1 Common Semitic / Middle Egyptian

| I-K-J-T-I |  |  |
| :---: | :---: | :---: |
| I-K-J-T | I-K-J | I-K |
| K-J-T-I | K-J-T | K-J |
| J-T-I | J-T | T-I |

Table 238.1.1. Combination of clusters from ZA 6b (a)

## P-Z

Table 238.1.2. Combination of clusters from ZA 6b (b)

## I-M

Table 238.1.3. Combination of clusters from ZA 6b ©
3.238.2 Hittite

| I-KU-JU-TI-I |  |  |
| :---: | :---: | :---: |
| I-KU-JU-TI | I-KU-JU | I-KU |
| KU-JU-TI-I | KU-JU-TI | KU-JU |
| JU-TI-I | JU-TI | TI-I |

Table 238.2.1. Combination of clusters from ZA 6b (a)

## PA-ZA

Table 238.2.2. Combination of clusters from ZA 6b (b)

## I-MA

Table 238.2.3. Combination of clusters from ZA 6b (c)

### 3.239 Artefact ZA Ta

Transcription of Linear A characters on artefact ZA Ta yielded strings under three distinct rows of clusters:
a. $\mathrm{U}-\mathrm{JU} \mid \mathrm{A}$
b. RA-TU |A-RE-TU
c. MI

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Image 239. Standardised inscription of ZA Fa, obtained from GORILA 3

### 3.239.1 Common Semitic / Middle Egyptian

U-J
Table 239.1.1. Combination of clusters from ZA Ta (a)

| A-R-T |  |
| :---: | :---: |
| A-R | R-T |

Table 239.1.2. Combination of clusters from ZA Ta (b)

| A-R-T-M |  |  |
| :---: | :---: | :---: |
| A-R-T | A-R | R-T |
| R-T-M | T-M |  |

Table 239.1.3. Combination of clusters from ZA 7a (b)-(c)
3.239.2 Hittite

## U-JU

Table 239.2.1. Combination of clusters from ZA Fa (a)

| A-RA-TU |  |
| :---: | :---: |
| A-RA | RA-TU |

Table 239.2.2. Combination of clusters from ZA Fa (b)

| A-RE-TU-MI |  |  |
| :---: | :---: | :---: |
| A-RE-TU | A-RE | RE-TU |
| RE-TU-MI | TU-MI |  |

Table 239.2.3. Combination of clusters from ZA 7a (b)-(c)

### 3.240 Artefact ZA 7b

Transcription of Linear A characters on artefact ZA 7b yielded a string under one distinct row of cluster:
a. A-MA |
Z.A Zl)


Image 240. Standardised inscription of ZA 7b, obtained from GORILA 3

### 3.240.1 Common Semitic / Middle Egyptian

## A-M

Table 240.1.1. Combination of clusters from ZA 7b (a)

### 3.240.2 Hittite

## A-MA

Table 240.2.1. Combination of clusters from ZA 7b (a)

### 3.241 Artefact ZA 8

Transcription of Linear A characters on artefact ZA 8 yielded strings under six distinct rows of clusters:
a. KI-RA |A-TA-RE $\mid$
b. KU-TU-KO-RE|A-RI
c. NI-TA |TA-I-NU-MA
d. PA $\mid$ MA-KA-I-SE $\mid$
e. DA-I-PI-TA |
f. KA-I-RO


Image 241. Standardised inscription of ZA 8, obtained from GORILA 3

### 3.241.1 Common Semitic / Middle Egyptian



Table 241.1.1. Combination of clusters from ZA 8 (a)

| K-T-K-R |  |  |
| :---: | :---: | :---: |
| K-T-K | K-T | T-K |
| T-K-R | K-R |  |

Table 241.1.2. Combination of clusters from ZA 8 (b)

| A-R-N-T |  |  |
| :---: | :---: | :---: |
| A-R-N | A-R | R-N |
| R-N-T | N-T |  |

Table 241.1.3. Combination of clusters from ZA 8 (b)-(c)

| T-I-N-M-P |  |  |
| :---: | :---: | :---: |
| T-I-N-M | T-I-N | T-I |
| I-N-M-P | I-N-M | I-N |
| N-M-P | N-M | M-P |

Table 241.1.4. Combination of clusters from ZA 8 (c)-(d)

| M-K-I-S |  |  |
| :---: | :---: | :---: |
| M-K-I | M-K | K-I |
| K-I-S | I-S |  |

Table 241.1.5. Combination of clusters from ZA 8 (d)

| D-I-P-T |  |  |
| :---: | :---: | :---: |
| D-I-P | D-I | I-P |
| I-P-T | P-T |  |

Table 241.1.6. Combination of clusters from ZA 8 (e)

| K-I-R |  |
| :---: | :---: |
| K-I | I-R |

Table 241.1.7. Combination of clusters from ZA 8 (f)
3.241.2 Hittite

| KI-RA |  |  |
| :---: | :---: | :---: |
| A-TA-RE |  |  |
| A-TA | TA-RE |  |

Table 241.2.1. Combination of clusters from ZA 8 (a)

| KU-TU-KO-RE |  |  |
| :---: | :---: | :---: |
| KU-TU-KO | KU-TU | TU-KO |
| TU-KO-RE | KO-RE |  |

Table 241.2.2. Combination of clusters from ZA 8 (b)

| A-RI-NI-TA |  |  |
| :---: | :---: | :---: |
| A-RI-NI | A-RI | RI-NI |
| RI-NI-TA | NI-TA |  |

Table 241.2.3. Combination of clusters from ZA 8 (b)-(c)

| TA-I-NU-MA-PA |  |  |
| :---: | :---: | :---: |
| TA-I-NU-MA | TA-I-NU | TA-I |
| I-NU-MA-PA | I-NU-MA | I-NU |
| NU-MA-PA | NU-MA | MA-PA |

Table 241.2.4. Combination of clusters from ZA 8 (c)-(d)

| MA-KA-I-SE |  |  |
| :---: | :---: | :---: |
| MA-KA-I | MA-KA | KA-I |
| KA-I-SE | I-SE |  |

Table 241.2.5. Combination of clusters from ZA 8 (d)

| DA-I-PI-TA |  |  |
| :---: | :---: | :---: |
| DA-I-PI | DA-I | I-PI |
| I-PI-TA | PI-TA |  |

Table 241.2.6. Combination of clusters from ZA 8 (e)

| KA-I-RO |  |
| :---: | :---: |
| KA-I | I-RO |

Table 241.2.7. Combination of clusters from ZA 8 (f)

### 3.242 Artefact ZA 9

Transcription of Linear A characters on artefact ZA 9 yielded strings under five distinct rows of clusters:
a. |NU-TI|
b. |RO-SI-RA
c. $|A-T A-N A|$
d. $|\mathrm{MA}-\mathrm{JU}|$
e. WI-RA-RE-MI-TE
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Image 242. Standardised inscription of ZA 9, obtained from GORILA 3

### 3.242.1 Common Semitic / Middle Egyptian

N-T
Table 242.1.1. Combination of clusters from ZA 9 (a)

| R-S-R |  |
| :---: | :---: |
| R-S | S-R |

Table 242.1.2. Combination of clusters from ZA 9 (b)

| A-T-N |  |
| :---: | :---: |
| A-T | T-N |

Table 242.1.3. Combination of clusters from ZA 9 (c)

## M-J

Table 242.1.4. Combination of clusters from ZA 9 (d)

| W-R-R-M-T |  |  |
| :---: | :---: | :---: |
| W-R-R-M | W-R-R | W-R |
| R-R-M-T | R-R-M | R-R |
| R-M-T | R-M | M-T |

Table 242.1.5. Combination of clusters from ZA 9 (e)

## NU-TI

Table 242.2.1. Combination of clusters from ZA 9 (a)

| RO-SI-RA |  |  |
| :---: | :---: | :---: |
| RO-SI | SI-RA |  |

Table 242.2.2. Combination of clusters from ZA 9 (b)

| A-TA-NA |  |
| :---: | :---: |
| A-TA | TA-NA |

Table 242.2.3. Combination of clusters from ZA 9 (c)

## MA-JU

Table 242.2.4. Combination of clusters from ZA 9 (d)

| WI-RA-RE-MI-TE |  |  |
| :---: | :---: | :---: |
| WI-RA-RE-MI | WI-RA-RE | WI-RA |
| RA-RE-MI-TE | RA-RE-MI | RA-RE |
| RE-MI-TE | RE-MI | MI-TE |

Table 242.2.5. Combination of clusters from ZA 9 (e)

### 3.243 Artefact ZA 10a

Transcription of Linear A characters on artefact ZA 10a yielded strings under five distinct rows of clusters:
a. TA-NA-TE $\mid \mathrm{A}-\mathrm{KU}$
b. MI-NA $\mid$ A-TA-NA-TE $\mid$
c. A-MI-DA-U |A-DU
d. KU-MI-NA |DA-I-PI
e. TA|DU-RE-ZA-SE

HA 10a

Image 243. Standardised inscription of ZA 10a, obtained from GORILA 3
3.243.1 Common Semitic / Middle Egyptian

| T-N-T |  |
| :---: | :---: |
| T-N | $\mathrm{N}-\mathrm{T}$ |

Table 243.1.1. Combination of clusters from ZA 10a (a)

| A-K-M-N |  |  |
| :---: | :---: | :---: |
| A-K-M | A-K | K-M |
| K-M-N | M-N |  |

Table 243.1.2. Combination of clusters from ZA 10a (a)-(b)

| A-T-N-T |  |  |
| :---: | :---: | :---: |
| A-T-N | A-T | T-N |
| T-N-T | N-T |  |

Table 243.1.3. Combination of clusters from ZA 10a (b)

| A-M-D-U |  |  |
| :---: | :---: | :---: |
| A-M-D | A-M | M-D |
| M-D-U | D-U |  |

Table 243.1.4. Combination of clusters from ZA 10a (c)

| A-D-K-M-N |  |  |
| :---: | :---: | :---: |
| A-D-K-M | A-D-K | A-D |
| D-K-M-N | D-K-M | D-K |
| K-M-N | K-M | M-N |

Table 243.1.5. Combination of clusters from ZA 10a (c)-(d)

| D-I-P-T |  |  |
| :---: | :---: | :---: |
| D-I-P | D-I | I-P |
| I-P-T | P-T |  |

Table 243.1.6. Combination of clusters from ZA 10a (d)-(e)

| D-R-Z-S |  |  |
| :---: | :---: | :---: |
| D-R-Z | D-R | R-Z |
| R-Z-S | Z-S |  |

Table 243.1.7. Combination of clusters from ZA 10a (e)

### 3.243.2 Hittite

|  | TA-NA-TE |
| :---: | :---: |
| TA-NA | NA-TE |

Table 243.2.1. Combination of clusters from ZA 10a (a)

## A-KU-MI-NA

| A-KU-MI | A-KU | KU-MI |
| :---: | :---: | :---: |
| KU-MI-NA | MI-NA |  |

Table 243.2.2. Combination of clusters from ZA 10a (a)-(b)

| A-TA-NA-TE |  |  |
| :---: | :---: | :---: |
| A-TA-NA | A-TA | TA-NA |
| TA-NA-TE | NA-TE |  |

Table 243.2.3. Combination of clusters from ZA 10a (b)

| A-MI-DA-U |  |  |
| :---: | :---: | :---: |
| A-MI-DA | A-MI | MI-DA |
| MI-DA-U | DA-U |  |

Table 243.2.4. Combination of clusters from ZA 10a (c)

| A-DU-KU-MI-NA |  |  |
| :---: | :---: | :---: |
| A-DU-KU-MI | A-DU-KU | A-DU |
| DU-KU-MI-NA | DU-KU-MI | DU-KU |
| KU-MI-NA | KU-MI | MI-NA |

Table 243.2.5. Combination of clusters from ZA 10a (c)-(d)

| DA-I-PI-TA |  |  |
| :---: | :---: | :---: |
| DA-I-PI | DA-I | I-PI |
| I-PI-TA | PI-TA |  |

Table 243.2.6. Combination of clusters from ZA 10a (d)-(e)

| DU-RE-ZA-SE |  |  |
| :---: | :---: | :---: |
| DU-RE-ZA | DU-RE | RE-ZA |
| RE-ZA-SE | ZA-SE |  |

Table 243.2.7. Combination of clusters from ZA 10a (e)

### 3.244 Artefact ZA 10b

Transcription of Linear A characters on artefact ZA 10b yielded strings under six distinct rows of clusters:
a. WI *362|DU-RE-ZA-SE
b. |U *49|MA-ZA
c. |MA-KI-DE-TE |SA
d. MA $|\mathrm{A}-\mathrm{DE}| \mathrm{A}-\mathrm{MI}$
e. TA|RA-RO-RE|PA-JA-RE
f. |KA-KU-NE-TE |


Image 244. Standardised inscription of ZA 10b, obtained from GORILA 3
3.244.1 Common Semitic / Middle Egyptian

| D-R-Z-S |  |  |
| :---: | :---: | :---: |
| D-R-Z | D-R | R-Z |
| R-Z-S | Z-S |  |

Table 244.1.1. Combination of clusters from ZA 10b (a)

## M-Z

Table 244.1.2. Combination of clusters from ZA 10b (b)

| M-K-D-T |  |  |
| :---: | :---: | :---: |
| M-K-D | M-K | K-D |
| K-D-T | D-T |  |

Table 244.1.3. Combination of clusters from ZA 10b ©

## S-M

Table 244.1.4. Combination of clusters from ZA 10b ©-(d)

## A-D

Table 244.1.5. Combination of clusters from ZA 10b (d)

| A-M-T |  |  |
| :---: | :---: | :---: |
| A-M | M-T |  |

Table 244.1.6. Combination of clusters from ZA 10b (d)-(e)

| R-R-R |  |
| :---: | :---: | :---: |
| R-R | R-J-R |
|  |  |


| P-J | J-R |
| :---: | :---: |

Table 244.1.7. Combination of clusters from ZA 10b (e)

| K-K-N-T |  |  |
| :---: | :---: | :---: |
| K-K-N | K-K | K-N |
| K-N-T | N-T |  |

Table 244.1.8. Combination of clusters from ZA 10b (f)

### 3.244.2 Hittite

| DU-RE-ZA-SE |  |  |
| :---: | :---: | :---: |
| DU-RE-ZA | DU-RE | RE-ZA |
| RE-ZA-SE | ZA-SE |  |

Table 244.2.1. Combination of clusters from ZA 10b (a)

## MA-ZA

Table 244.2.2. Combination of clusters from ZA 10b (b)

| MA-KI-DE-TE |  |  |
| :---: | :---: | :---: |
| MA-KI-DE | MA-KI | KI-DE |
| KI-DE-TE | DE-TE |  |

Table 244.2.3. Combination of clusters from ZA 10b (c)

## SA-MA

Table 244.2.4. Combination of clusters from ZA 10b (c)-(d)

## A-DE

Table 244.2.5. Combination of clusters from ZA 10b (d)

|  | A-MI-TA |
| :---: | :---: |
| A-MI | MI-TA |

Table 244.2.6. Combination of clusters from ZA 10b (d)-(e)

| RA-RO-RE |  |  |
| :---: | :---: | :---: |
| RA-RO |  | RO-RE |
| PA-JA-RE |  |  |
| PA-JA |  | JA-RE |

Table 244.2.7. Combination of clusters from ZA 10b (e)

| KA-KU-NE-TE |  |  |
| :---: | :---: | :---: |
| KA-KU-NE | KA-KU | KU-NE |
| KU-NE-TE | NE-TE |  |

Table 244.2.8. Combination of clusters from ZA 10b (f)

### 3.245 Artefact ZA 11a

Transcription of Linear A characters on artefact ZA 11a yielded strings under four distinct rows of clusters:
a. DI-DI-KO-RA-ME
b. |RA-MA-SI
c. $|E-K U-R U|$
d. $\mathrm{KU}-\mathrm{PA} \mid \mathrm{PI} * 310 \mathrm{~A}$

ZaI Ha


Image 245. Standardised inscription of ZA 11a, obtained from GORILA 3
3.245.1 Common Semitic / Middle Egyptian

| D-D-K-R-M |  |  |
| :---: | :---: | :---: |
| D-D-K-R | D-D-K | D-D |
| D-K-R-M | D-K-R | D-K |
| K-R-M | K-R | R-M |

Table 245.1.1. Combination of clusters from ZA 11a (a)

| R-M-S |  |
| :---: | :---: |
| R-M | M-S |

Table 245.1.2. Combination of clusters from ZA 11a (b)

| E-K-R |  |
| :---: | :---: |
| E-K | K-R |

Table 245.1.3. Combination of clusters from ZA 11a (c)

## K-P

Table 245.1.4. Combination of clusters from ZA 11a (d)

| DI－DI－KO－RA－ME |  |  |
| :---: | :---: | :---: |
| DI－DI－KO－RA | DI－DI－KO | DI－DI |
| DI－KO－RA－ME | DI－KO－RA | DI－KO |
| KO－RA－ME | KO－RA | RA－ME |

Table 245．2．1．Combination of clusters from ZA 11a（a）

| RA－MA－SI |  |
| :---: | :---: |
| RA－MA | MA－SI |

Table 245．2．2．Combination of clusters from ZA 11a（b）

| E－KU－RU |  |
| :---: | :---: |
| E－KU |  |

Table 245．2．3．Combination of clusters from ZA 11a（c）

## KU－PA

Table 245．2．4．Combination of clusters from ZA 11a（d）

## 3．246 Artefact ZA 11b

Transcription of Linear A characters on artefact ZA 11b yielded strings under three distinct rows of clusters：
a．E－TO－RI｜SA＊301 RI｜
b．$|\mathrm{I}-\mathrm{DE}|$
c． $\mid$ KU－PA｜
ZA Hb

$$
\begin{aligned}
& \text { 4. 业中, 中 } \\
& \text { : } 3 \text { ( } 4 \text { 明 }
\end{aligned}
$$

Image 246．Standardised inscription of ZA 11b，obtained from GORILA 3

## 3．246．1 Common Semitic／Middle Egyptian

| E－T－R |  |
| :---: | :---: |
| E－T | T－R |

Table 246．1．1．Combination of clusters from ZA 11b（a）

## I－D

Table 246．1．2．Combination of clusters from ZA 11b（b）

## K-P

Table 246.1.3. Combination of clusters from ZA 11b (c)
3.246.2 Hittite

|  | E-TO-RI |
| :---: | :---: |
| E-TO | TO-RI |

Table 246.2.1. Combination of clusters from ZA 11b (a)

## I-DE

Table 246.2.2. Combination of clusters from ZA 11b (b)

## KU-PA

Table 246.2.3. Combination of clusters from ZA 11b (c)

### 3.247 Artefact ZA 13

Transcription of Linear A characters on artefact ZA 13 yielded a string under one distinct row of cluster:
a. $\mid$ SU-PA $\mid$

ZA 16


3-5 vacant

Image 247. Standardised inscription of ZA 13, obtained from GORILA 3

### 3.247.1 Common Semitic / Middle Egyptian

## S-P

Table 247.1.1. Combination of clusters from ZA 13 (a)

### 3.247.2 Hittite

## SU-PA

Table 247.2.1. Combination of clusters from ZA 13 (a)

### 3.248 Artefact ZA 14

Transcription of Linear A characters on artefact ZA 14 yielded strings under four distinct rows of clusters:
a. ME-KI-DI $\mid$ QI *118|
b. PU-NI-KA-SO |QA-TI-JU
c. KU-PI|TU-MI-TI-ZA-SE
d. $\mid$ PA-NU-QE $\mid J A-W I$
Z.A 1-4

$$
\begin{aligned}
& 3\left(\begin{array}{ll}
3 & 4
\end{array}\right) \cdot\left(\left.\begin{array}{llll}
x & 6 & 0 & c
\end{array} \right\rvert\,\right.
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{ll}
.5 & I_{\text {vesx }} \\
.6 & J_{\text {vacat }}
\end{array}
\end{aligned}
$$

Image 248. Standardised inscription of ZA 14, obtained from GORILA 3

### 3.248.1 Common Semitic / Middle Egyptian

| M-K-D |  |
| :---: | :---: |
| M-K | K-D |

Table 248.1.1. Combination of clusters from ZA 14 (a)

| P-N-K-S |  |  |
| :---: | :---: | :---: |
| P-N-K | P-N | N-K |
| N-K-S | K-S |  |
| Q-T |  |  |

Table 248.1.2. Combination of clusters from ZA 14 (b)

| K-P |  |  |
| :---: | :---: | :---: |
| T-M-T-Z-S |  |  |
| T-M-T-Z | T-M-T | T-M |
| M-T-Z-S | M-T-Z | M-T |
| T-Z-S | T-Z | Z-S |

Table 248.1.3. Combination of clusters from ZA 14 (c)

| P-N-Q |  |  |
| :---: | :---: | :---: |
| P-N | N-Q |  |
|  | J-W |  |

Table 248.1.4. Combination of clusters from ZA 14 (d)

### 3.248.2 Hittite

| ME-KI-DI |  |
| :---: | :---: |
| ME-KI KI-DI |  |

Table 248.2.1. Combination of clusters from ZA 14 (a)

| PU-NI-KA-SO |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PU-NI-KA | PU-NI | NI-KA |  |  |  |
| NI-KA-SO | KA-SO |  |  |  |  |
| QA-TI |  |  |  | QA-TI-JU |  |

Table 248.2.2. Combination of clusters from ZA 14 (b)

| KU-PI |  |  |
| :---: | :---: | :---: |
| TU-MI-TI-ZA-SE |  |  |
| TU-MI-TI-ZA | TU-MI-TI | TU-MI |
| MI-TI-ZA-SE | MI-TI-ZA | MI-TI |
| TI-ZA-SE | TI-ZA | ZA-SE |

Table 248.2.3. Combination of clusters from ZA 14 (c)

| PA-NU-QE |  |  |
| :---: | :---: | :---: |
| PA-NU |  | NU-QE |
|  | JA-WI |  |

Table 248.2.4. Combination of clusters from ZA 14 (d)

### 3.249 Artefact ZA 15a

Transcription of Linear A characters on artefact ZA 15a yielded strings under seven distinct rows of clusters:
a. $* 47 \mathrm{KU}-\mathrm{NA}-\mathrm{SA} \mid$
b. QE-SI-ZU-E
c. I-TI-NI-SA |
d. MI-ZA-SE|I-NU-MA
e. RE|SI-PI-KI|
f. JA-SA-MU | SA-MI-DA
g. $\mathrm{E} \mid$ SO-KE-MA-SE $\mid$

Image 249. Standardised inscription of ZA 15a, obtained from GORILA 3
3.249.1 Common Semitic / Middle Egyptian

| K-N-S |  |
| :---: | :---: |
| K-N | N-S |

Table 249.1.1. Combination of clusters from ZA 15a (a)

| Q-S-Z-E |  |  |
| :---: | :---: | :---: |
| Q-S-Z | Q-S | S-Z |
| S-Z-E | Z-E |  |

Table 249.1.2. Combination of clusters from ZA 15a (b)

| I-T-N-S |  |  |
| :---: | :---: | :---: |
| I-T-N | I-T | T-N |
| T-N-S | N-S |  |

Table 249.1.3. Combination of clusters from ZA 15a (c)

| M-Z-S |  |
| :---: | :---: |
| M-Z | Z-S |

Table 249.1.4. Combination of clusters from ZA 15a (d)

| I-N-M-R |  |  |
| :---: | :---: | :---: |
| I-N-M | I-N | N-M |
| N-M-R | M-R |  |

Table 249.1.5. Combination of clusters from ZA 15a (d)-(e)

| S-P-K |  |
| :---: | :---: |
| S-P | P-K |

Table 249.1.6. Combination of clusters from ZA 15a (e)

|  | J-S-M |
| :---: | :---: |
| J-S | S-M |

Table 249.1.7. Combination of clusters from ZA 15a (f)

| S-M-D-E |  |  |
| :---: | :---: | :---: |
| S-M-D | S-M | M-D |
| M-D-E | D-E |  |

Table 249.1.8. Combination of clusters from ZA 15a (f)-(g)

| S-K-M-S |  |  |
| :---: | :---: | :---: |
| S-K-M | S-K | K-M |
| K-M-S | M-S |  |

Table 249.1.9. Combination of clusters from ZA 15a (g)
3.249.2 Hittite

| KU-NA-SA |  |
| :---: | :---: |
| KU-NA | NA-SA |

Table 249.2.1. Combination of clusters from ZA 15a (a)

| QE-SI-ZU-E |  |  |
| :---: | :---: | :---: |
| QE-SI-ZU | QE-SI | SI-ZU |
| SI-ZU-E | ZU-E |  |

Table 249.2.2. Combination of clusters from ZA 15a (b)

| I-TI-NI-SA |  |  |
| :---: | :---: | :---: |
| I-TI-NI | I-TI | TI-NI |
| TI-NI-SA | NI-SA |  |

Table 249.2.3. Combination of clusters from ZA 15a (c)

| MI-ZA-SE |  |
| :---: | :---: |
| MI-ZA | ZA-SE |

Table 249.2.4. Combination of clusters from ZA 15a (d)

| I-NU-MA-RE |  |  |
| :---: | :---: | :---: |
| I-NU-MA | I-NU | NU-MA |
| NU-MA-RE | MA-RE |  |

Table 249.2.5. Combination of clusters from ZA 15a (d)-(e)

| SI-PI-KI |  |  |
| :---: | :---: | :---: |
| SI-PI | PI-KI |  |

Table 249.2.6. Combination of clusters from ZA 15a (e)

| JA－SA－MU |  |  |
| :---: | :---: | :---: |
| JA－SA | SA－MU |  |

Table 249．2．7．Combination of clusters from ZA 15a（f）

| SA－MI－DA－E |  |  |
| :---: | :---: | :---: |
| SA－MI－DA | SA－MI | MI－DA |
| MI－DA－E | DA－E |  |

Table 249．2．8．Combination of clusters from ZA 15a（f）－（g）

| SO－KE－MA－SE |  |  |
| :---: | :---: | :---: |
| SO－KE－MA | SO－KE | KE－MA |
| KE－MA－SE | MA－SE |  |

Table 249．2．9．Combination of clusters from ZA 15a（g）

## 3．250 Artefact ZA 15b

Transcription of Linear A characters on artefact ZA 15b yielded strings under two distinct rows of clusters：
a．KA－DI
b．KU－RO｜
－-7 vacant
Image 250．Standardised inscription of ZA 15b，obtained from GORILA 3

## 3．250．1 Common Semitic／Middle Egyptian

K－D
Table 250．1．1．Combination of clusters from ZA 15b（a）

## K－R

Table 250．1．2．Combination of clusters from ZA 15b（b）

3．250．2 Hittite

## KA－DI

Table 250．2．1．Combination of clusters from ZA 15b（a）

## KU－RO

Table 250．2．2．Combination of clusters from ZA 15b（b）

### 3.251 Artefact ZA 18a

Transcription of Linear A characters on artefact ZA 18a yielded strings under one distinct row of clusters:
a. DA-RE-KU | KU *321|
\%a lisa



3-5 vacant
Image 251. Standardised inscription of ZA 18a, obtained from GORILA 3

### 3.251.1 Common Semitic / Middle Egyptian

|  | D-R-K |
| :---: | :---: |
| D-R | R-K |

Table 251.1.1. Combination of clusters from ZA 18a (a)
3.251.2 Hittite

| DA-RE-KU |  |
| :---: | :---: |
| DA-RE | RE-KU |

Table 251.2.1. Combination of clusters from ZA 18a (a)

### 3.252 Artefact ZA 19

Transcription of Linear A characters on artefact ZA 19 yielded a string under one distinct row of cluster:
a. RA-TE

ZA 19)


Image 252. Standardised inscription of ZA 19, obtained from GORILA 3
3.252.1 Common Semitic / Middle Egyptian

R-T
Table 252.1.1. Combination of clusters from ZA 19 (a)

## RA-TE

Table 252.2.1. Combination of clusters from ZA 19 (a)

### 3.253 Artefact ZA 20

Transcription of Linear A characters on artefact ZA 20 yielded strings under four distinct rows of clusters:
a. |DU-RE-ZA
b. $\mid$ SI-TE-TU $\mid$
c. SI-TU |TE * $123 \mid$ RU-MA-TA-SE $\mid$
d. KU-RA

RA $\mathbf{9 0}$


Image 253. Standardised inscription of ZA 20, obtained from GORILA 3
3.253.1 Common Semitic / Middle Egyptian

| D-R-Z |  |
| :---: | :---: |
| D-R | R-Z |

Table 253.1.1. Combination of clusters from ZA 20 (a)

| S-T-T |  |
| :---: | :---: |
| S-T | T-T |

Table 253.1.2. Combination of clusters from ZA 20 (b)

| S-T |  |  |
| :---: | :---: | :---: |
| R-M-T-S |  |  |
| R-M-T | R-M | M-T |
| M-T-S | T-S |  |

Table 253.1.3. Combination of clusters from ZA 20 (c)

## K-R

Table 253.1.4. Combination of clusters from ZA 20 (d)

### 3.253.2 Hittite

## DU-RE-ZA

| DU-RE | RE-ZA |
| :---: | :---: |

Table 253.2.1. Combination of clusters from ZA 20 (a)

|  | SI-TE-TU |
| :---: | :---: | :---: |
| SI-TE | TE-TU |

Table 253.2.2. Combination of clusters from ZA 20 (b)

| SI-TU |  |  |
| :---: | :---: | :---: |
| RU-MA-TA-SE |  |  |
| RU-MA-TA | RU-MA | MA-TA |
| MA-TA-SE | TA-SE |  |

Table 253.2.3. Combination of clusters from ZA 20 (c)

## KU-RA

Table 253.2.4. Combination of clusters from ZA 20 (d)

### 3.254 Artefact ZA 21a

Transcription of Linear A characters on artefact ZA 21a yielded strings under three distinct rows of clusters:
a. $\mid$ PI-MU $\mid$
b. |TA-KE
c. |TA-MA-PI
\% …


Image 254. Standardised inscription of ZA 21a, obtained from GORILA 3
3.254.1 Common Semitic / Middle Egyptian

P-M
Table 254.1.1. Combination of clusters from ZA 21a (a)

## T-K

Table 254.1.2. Combination of clusters from ZA 21a (b)

| T-M-P |  |
| :---: | :---: |
| T-M | M-P |

Table 254.1.3. Combination of clusters from ZA 21a (c)

### 3.254.2 Hittite

## PI-MU

Table 254.2.1. Combination of clusters from ZA 21a (a)

## TA-KE

Table 254.2.2. Combination of clusters from ZA 21a (b)

|  | TA-MA-PI |
| :---: | :---: |
| TA-MA | MA-PI |

Table 254.2.3. Combination of clusters from ZA 21a (c)

### 3.255 Artefact ZA 21b

Transcription of Linear A characters on artefact ZA 21b yielded strings under two distinct rows of clusters:
a. I-DA |
b. $\mid$ SA-RI $\mid$


Image 255. Standardised inscription of ZA 21b, obtained from GORILA 3
3.255.1 Common Semitic / Middle Egyptian

I-D
Table 255.1.1. Combination of clusters from ZA 21b (a)

## S-R

Table 255.1.2. Combination of clusters from ZA 21b (b)
3.255.2 Hittite

## I-DA

Table 255.2.1. Combination of clusters from ZA 21b (a)

## SA-RI

Table 255.2.2. Combination of clusters from ZA 21b (b)

### 3.256 Artefact ZA 22

Transcription of Linear A characters on artefact ZA 22 yielded a string under one distinct row of cluster:
a. $\mid$ DU-JU $\mid$
\%A $\mathbf{2 0}$


Image 256. Standardised inscription of ZA 22, obtained from GORILA 3
3.256.1 Common Semitic / Middle Egyptian

## D-J

Table 256.1.1. Combination of clusters from ZA 22 (a)
3.256.2 Hittite

## DU-JU

Table 256.2.1. Combination of clusters from ZA 22 (a)

### 3.257 Artefact ZA 23

Transcription of Linear A characters on artefact ZA 23 yielded strings under two distinct rows of clusters:
a. TE-TE
b. MI-RE

ZA 95


Image 257. Standardised inscription of ZA 23, obtained from GORILA 3
3.257.1 Common Semitic / Middle Egyptian

## T-T

Table 257.1.1. Combination of clusters from ZA 23 (a)

## M-R

Table 257.1.2. Combination of clusters from ZA 23 (b)
3.257.2 Hittite

TE-TE
Table 257.2.1. Combination of clusters from ZA 23 (a)

## MI-RE

Table 257.2.2. Combination of clusters from ZA 23 (b)

### 3.258 Artefact ZA 24a

Transcription of Linear A characters on artefact ZA 24a yielded a string under one distinct row of cluster:
a. I-DA-MA |

Zat Mant


2 vest [
Image 258. Standardised inscription of ZA 24a, obtained from GORILA 3

### 3.258.1 Common Semitic / Middle Egyptian

| I-D-M |  |
| :---: | :---: |
| I-D | D-M |

Table 258.1.1. Combination of clusters from ZA 24a (a)

| I-DA-MA |  |
| :---: | :---: |
| I-DA | DA-MA |

Table 258.2.1. Combination of clusters from ZA 24a (a)

### 3.259 Artefact ZA 26a

Transcription of Linear A characters on artefact ZA 26a yielded strings under two distinct rows of clusters:
a. SI-TE $\mid$ DI-DI $\mid$
b. $|\mathrm{JA}-\mathrm{KI}|$
Z. $\mathbf{~ M} \mathbf{6 4}$


Image 259. Standardised inscription of ZA 26a, obtained from GORILA 3
3.259.1 Common Semitic / Middle Egyptian

| S-T |
| :--- |
| D-D |

Table 259.1.1. Combination of clusters from ZA 26a (a)

## J-K

Table 259.1.2. Combination of clusters from ZA 26a (b)
3.259.2 Hittite

| SI-TE |
| :---: |
| DI-DI |

Table 259.2.1. Combination of clusters from ZA 26a (a)

## JA-KI

Table 259.2.2. Combination of clusters from ZA 26a (b)

### 3.260 Artefact ZA 27

Transcription of Linear A characters on artefact ZA 27 yielded strings under one distinct row of clusters:
a. $\mid$ DI-KI $|\mathrm{O}-\mathrm{MI}|$
\％A 9\％


Image 260．Standardised inscription of ZA 27，obtained from GORILA 3

## 3．260．1 Common Semitic／Middle Egyptian

| D－K |
| :---: |
| $\mathbf{O - M}$ |

Table 260．1．1．Combination of clusters from ZA 27 （a）

3．260．2 Hittite

| DI－KI |
| :---: |
| $\mathbf{O - M I}$ |

Table 260．2．1．Combination of clusters from ZA 27 （a）

## 3．261 Artefact AP Za 1

Transcription of Linear A characters on artefact AP Za 1 yielded a string under one distinct row of cluster：
a．JA－TA－I＊301 U－JA

# AP Yal 

（目己世那目）［
Image 261．Standardised inscription of AP Za 1，obtained from GORILA 4

## 3．261．1 Common Semitic／Middle Egyptian

|  | J－T－I |
| :---: | :---: |
| J－T |  |
|  | U－J |

Table 261．1．1．Combination of clusters from AP Za 1 （a）

## 3．261．2 Hittite

| JA－TA－I |  |  |
| :---: | :---: | :---: |
| JA－TA | TA－I |  |
|  | U－JA |  |

Table 261．2．1．Combination of clusters from AP Za 1 （a）

### 3.262 Artefact AP Za 2

Transcription of Linear A characters on artefact AP Za 2 yielded strings under two distinct rows of clusters:
a. |NA-SI | I-PI-NA-MA | KU-PA-NA-TU-NA-TE $\mid$
b. |PI-MI-NA-TE | I-NA-JA-RE |

$$
\begin{aligned}
& \text { Al } / 41 \text { " }
\end{aligned}
$$

Image 262. Standardised inscription of AP Za 2, obtained from GORILA 4

### 3.262.1 Common Semitic / Middle Egyptian

| N-S |  |  |
| :---: | :---: | :---: |
| I-P-N-M |  |  |
| I-P-N | I-P | P-N |
| P-N-M | N-M |  |
| K-P-N-T-N | K-P-N-N-T | K-P-N |
| K-P | P-N-T-N-T | P-N-T-N |
| P-N-T | P-N | N-T-N-T |
| N-T-N | N-T | T-N-T |
| T-N | N-T |  |

Table 262.1.1. Combination of clusters from AP Za 2 (a)

| P-M-N-T |  |  |  |
| :--- | :--- | :--- | :---: |
| P-M-N | P-M | M-N |  |
| M-N-T | N-T |  |  |
| I-N-J-R |  |  |  |
| I-N-J | I-N | N-J |  |
| N-J-R | J-R |  |  |

Table 262.1.2. Combination of clusters from AP Za 2 (b)
3.262.2 Hittite

| NA-SI |  |  |
| :---: | :---: | :---: |
| I-PI-NA-MA |  |  |
| I-PI-NA | I-PI | PI-NA |
| PI-NA-MA | NA-MA |  |
| KU-PA-NA-TU-NA-TE |  |  |
| KU-PA-NA-TU-NA | KU-PA-NA-TU | KU-PA-NA |
| KU-PA | PA-NA-TU-NA-TE | PA-NA-TU-NA |
| PA-NA-TU | PA-NA | NA-TU-NA-TE |
| NA-TU-NA | NA-TU | TU-NA-TE |


| TU-NA | NA-TE |  |
| :---: | :---: | :---: |

Table 262.2.1. Combination of clusters from AP Za 2 (a)

| PI-MI-NA-TE |  |  |
| :---: | :---: | :---: |
| PI-MI-NA | PI-MI | MI-NA |
| MI-NA-TE | NA-TE | I-NA-JA-RE |
| I-NA-JA | I-NA | NA-JA |
| NA-JA-RE | JA-RE |  |

Table 262.2.2. Combination of clusters from AP Za 2 (b)

### 3.263 Artefact KN Za 10a

Transcription of Linear A characters on artefact KN Za 10a yielded strings under one distinct row of clusters:
a. |TA-NU-MU-TI |JA-SA-SA-RA-ME |

IN Kall

Image 263. Standardised inscription of KN Za 10a, obtained from GORILA 4

### 3.263.1 Common Semitic / Middle Egyptian

| T-N-M-T |  |  |
| :---: | :---: | :---: |
| T-N-M | T-N | N-M |
| N-M-T | M-T |  |
| J-S-S-R-M |  |  |
| J-S-S-R | J-S-S | J-S |
| S-S-R-M | S-S-R | S-S |
| S-R-M | S-R | R-M |

Table 263.1.1. Combination of clusters from KN Za 10a (a)
3.263.2 Hittite

| TA-NU-MU-TI |  |  |
| :---: | :---: | :---: |
| TA-NU-MU | TA-NU | NU-MU |
| NU-MU-TI | MU-TI |  |
| JA-SA-SA-RA-ME |  |  |
| JA-SA-SA-RA | JA-SA-SA | JA-SA |
| SA-SA-RA-ME | SA-SA-RA | SA-SA |
| SA-RA-ME | SA-RA | RA-ME |

Table 263.2.1. Combination of clusters from KN Za 10a (a)

### 3.264 Artefact KN Za 10b

Transcription of Linear A characters on artefact KN Za 10b yielded strings under one distinct row of clusters:
a. $\mid$ DA-WA $\mid$ DU-WA-TO $\mid$ I-JA $\mid$

## IN Kall

Image 264. Standardised inscription of KN Za 10b, obtained from GORILA 4

### 3.264.1 Common Semitic / Middle Egyptian

| D-W |  |  |
| :---: | :---: | :---: |
| D-W |  |  |
| D-W | I-J |  |

Table 264.1.1. Combination of clusters from KN Za 10b (a)

### 3.264.2 Hittite

| DA-WA |  |  |
| :---: | :---: | :---: |
| DU-WA-TO |  |  |
| DU-WA |  | WA-TO |
|  | I-JA |  |

Table 264.2.1. Combination of clusters from KN Za 10b (a)

### 3.265 Artefact KN Za 17

Transcription of Linear A characters on artefact KN Za 17 yielded a string under one distinct row of cluster:
a. $|\mathrm{JA}-\mathrm{QE}|$

## INN HaIz



Image 265. Standardised inscription of KN Za 17, obtained from GORILA 4
3.265.1 Common Semitic / Middle Egyptian

Table 265.1.1. Combination of clusters from KN Za 17 (a)

## JA-QE

Table 265..2.1. Combination of clusters from KN Za 17 (a)

### 3.266 Artefact KN Ka 19

Transcription of Linear A characters on artefact KN Ka 19 yielded strings under two distinct rows of clusters:
a. |KE-JU-MI|
b. |*118 MI-NA

IN Z at 19


Image 266. Standardised inscription of KN Ka 19, obtained from GORILA 4

### 3.266.1 Common Semitic / Middle Egyptian

| K-J-M |  |
| :---: | :---: |
| K-J J-M |  |

Table 266.1.1. Combination of clusters from KN Ka 19 (a)

## M-N

Table 266.1.2. Combination of clusters from KN Ka 19 (b)

### 3.266.2 Hittite

| KE-JU-MI |  |
| :---: | :---: |
| KE-JU | JU-MI |

Table 266.2.1. Combination of clusters from KN Ka 19 (a)

## MI-NA

Table 266.2.2. Combination of clusters from KN Ka 19 (b)

### 3.267 Artefact KO Ra Ia

Transcription of Linear A characters on artefact KO Za la yielded a string under one distinct row of cluster:
a. A-TA-I *301 WA-JA
(in) HuI
$a\left(\nsim \square \stackrel{V}{T} A \Pi_{\pi}\right.$ 日 $)$
Image 267. Standardised inscription of KO Ka la, obtained from GORILA 4
3.267.1 Common Semitic / Middle Egyptian

| A-T-I |  |
| :---: | :---: | :---: |
| A-T | T-I |

## W-J

Table 267.1.1. Combination of clusters from $\mathrm{KO} \mathrm{Za} \mathrm{1a} \mathrm{(a)}$
3.267.2 Hittite

|  | A-TA-I |  |
| :---: | :---: | :---: |
| A-TA |  | TA-I |
|  | WA-JA |  |

Table 267.2.1. Combination of clusters from $\mathrm{KO} \mathrm{Za} \mathrm{1a} \mathrm{(a)}$

### 3.268 Artefact KO Za 1b

Transcription of Linear A characters on artefact $\mathrm{KO} \mathrm{Za} \mathrm{1b}$ yielded strings under one distinct row of clusters:
a. TU-RU-SA | DU-PU-RE |I-DA

IK) \%al


Image 268. Standardised inscription of KO Za 1b, obtained from GORILA 4

### 3.268.1 Common Semitic / Middle Egyptian

| T-R-S |  |  |
| :---: | :---: | :---: |
| T-R | R-S |  |
| D-P | D-R |  |
|  | I-D |  |

Table 268.1.1. Combination of clusters from $\mathrm{KO} \mathrm{Za} \mathrm{1b} \mathrm{(a)}$

### 3.268.2 Hittite

| TU-RU-SA |  |  |  |
| :---: | :---: | :---: | :---: |
| TU-RU |  | RU-SA |  |
|  | DU-PU-RE |  |  |
| DU-PU |  | PU-RE |  |
|  | I-DA |  |  |

Table 268.2.1. Combination of clusters from KO Za 1b (a)

### 3.269 Artefact KO Za 1c

Transcription of Linear A characters on artefact KO Za 1 c yielded a string under one distinct row of cluster:
a. |U-NA-KA-NA-SI|


Image 269. Standardised inscription of KO Za 1c, obtained from GORILA 4
3.269.1 Common Semitic / Middle Egyptian

| U-N-K-N-S |  |  |
| :---: | :---: | :---: |
| U-N-K-N | U-N-K | U-N |
| N-K-N-S | N-K-N | N-K |
| K-N-S | K-N | N-S |

Table 269.1.1. Combination of clusters from KO Za 1c (a)

### 3.269.2 Hittite

| U-NA-KA-NA-SI |  |  |
| :---: | :---: | :---: |
| U-NA-KA-NA | U-NA-KA | U-NA |
| NA-KA-NA-SI | NA-KA-NA | NA-KA |
| KA-NA-SI | KA-NA | NA-SI |

Table 269.2.1. Combination of clusters from KO Za 1c (a)

### 3.270 Artefact KO Za 1d

Transcription of Linear A characters on artefact KO Za 1d yielded strings under one distinct row of clusters:
a. PI-NA-MA | SI-RU-TE

$$
\begin{aligned}
& \text { Ki) Wat }
\end{aligned}
$$

Image 270. Standardised inscription of KO Za 1d, obtained from GORILA 4

### 3.270.1 Common Semitic / Middle Egyptian

| P-N-M |  |  |
| :---: | :---: | :---: |
| P-N | S-M |  |
| S-R |  | R-T |

Table 270.1.1. Combination of clusters from KO Za 1d (a)

### 3.270.2 Hittite

| PI-NA-MA |  |  |  |
| :---: | :---: | :---: | :---: |
| PI-NA |  | NA-MA |  |
|  | SI-RU-TE |  |  |
| SI-RU |  | RU-TE |  |

Table 270.2.1. Combination of clusters from KO Za 1d (a)

### 3.271 Artefact PK Za 4

Transcription of Linear A characters on artefact PK Za 4 yielded a string under one distinct row of cluster:
a. A-SA-SA-RA |

Image 271. Standardised inscription of PK Za 4, obtained from GORILA 4
3.271.1 Common Semitic / Middle Egyptian

| A-S-S-R |  |  |
| :---: | :---: | :---: |
| A-S-S | A-S | S-S |
| S-S-R | S-R |  |

Table 271.1.1. Combination of clusters from PK Za 4 (a)
3.271.2 Hittite

| A-SA-SA-RA |  |  |
| :---: | :---: | :---: |
| A-SA-SA | A-SA | SA-SA |
| SA-SA-RA | SA-RA |  |

Table 271.2.1. Combination of clusters from PK Za 4 (a)

### 3.272 Artefact PK Za 8

Transcription of Linear A characters on artefact PK Za 8 yielded strings under three distinct rows of clusters:
a. |PA-E |JA-DI-KI-TE-TE $\mid$
b. JA-SA |NA-KA-NA
c. $\mathrm{I}-\mathrm{PI} \mid$


Image 272. Standardised inscription of PK Za 8, obtained from GORILA 4
3.272.1 Common Semitic / Middle Egyptian

| P-E |  |  |
| :---: | :---: | :---: |
| J-D-K-T-T |  |  |
| J-D-K-T | J-D-K | J-D |
| D-K-T-T | D-K-T | D-K |
| K-T-T | K-T | T-T |

Table 272.1.1. Combination of clusters from PK Za 8 (a)

## J-S

| $\mathbf{N}-\mathrm{K}-\mathrm{N}$ |  |
| :---: | :---: |
| $\mathrm{N}-\mathrm{K}$ | K-N |

Table 272.1.2. Combination of clusters from PK Za 8 (b)

## I-P

Table 272.1.3. Combination of clusters from PK Za 8 (c)
3.272.2 Hittite

| PA-E |  |  |
| :---: | :---: | :---: |
| JA-DI-KI-TE-TE |  |  |
| JA-DI-KI-TE | JA-DI-KI | JA-DI |
| DI-KI-TE-TE | DI-KI-TE | DI-KI |
| KI-TE-TE | KI-TE | TE-TE |

Table 272.2.1. Combination of clusters from PK Za 8 (a)

| JA-SA |  |  |
| :---: | :---: | :---: |
| NA-KA-NA |  |  |
| NA-KA | KA-NA |  |

Table 272.2.2. Combination of clusters from PK Za 8 (b)

## I-PI

Table 272.2.3. Combination of clusters from PK Za 8 (c)

### 3.273 Artefact PK Za 9

Transcription of Linear A characters on artefact PK Za 9 yielded a string under one distinct row of cluster:
a. |JA-U-PA-MA-I-DA |

PK Za! )


Image 273. Standardised inscription of PK Za 9, obtained from GORILA 4
3.273.1 Common Semitic / Middle Egyptian

| J-U-P-M-I-D |  |  |
| :---: | :---: | :---: |
| J-U-P-M-I | J-U-P-M | J-U-P |
| J-U | U-P-M-I-D | U-P-M-I |
| U-P-M | U-P | P-M-I-D |
| P-M-I | P-M | M-I-D |
| M-I | I-D |  |

Table 273.1.1. Combination of clusters from PK Za 9 (a)
3.273.2 Hittite

| JA-U-PA-MA-I-DA |  |  |
| :---: | :---: | :---: |
| JA-U-PA-MA-I | JA-U-PA-MA | JA-U-PA |
| JA-U | U-PA-MA-I-DA | U-PA-MA-I |
| U-PA-MA | U-PA | PA-MA-I-DA |
| PA-MA-I | PA-MA | MA-I-DA |
| MA-I | I-DA |  |

Table 273.2.1. Combination of clusters from PK Za 9 (a)

### 3.274 Artefact PK Za 10

Transcription of Linear A characters on artefact PK Za 10 yielded a string under one distinct row of cluster:
a. |I-PI-NA-MI-NA |

PK Watio

Image 274. Standardised inscription of PK Za 10, obtained from GORILA 4

### 3.274.1 Common Semitic / Middle Egyptian

| I-P-N-M-N |  |  |
| :---: | :---: | :---: |
| I-P-N-M | I-P-N | I-P |
| P-N-M-N | P-N-M | P-N |
| N-M-N | N-M | M-N |

Table 274.1.1. Combination of clusters from PK Za 10 (a)

### 3.274.2 Hittite

| I-PI-NA-MI-NA |  |  |
| :---: | :---: | :---: |
| I-PI-NA-MI | I-PI-NA | I-PI |
| PI-NA-MI-NA | PI-NA-MI | PI-NA |
| NA-MI-NA | NA-MI | MI-NA |

Table 274.2.1. Combination of clusters from PK Za 10 (a)

### 3.275 Artefact HS Zg 1

Transcription of Linear A characters on artefact HS Zg 1 yielded a string under one distinct row of cluster:
a. A-MA

His Zal


Image 275. Standardised inscription of HS Zg 1, obtained from GORILA 5

## A-M

Table 275.1.1. Combination of clusters from HS Kg 1 (a)
3.275.2 Hittite

## A-MA

Table 275.2.1. Combination of clusters from HS Kg 1 (a)
3.276 Artefact IO Ka 2 (square libation table with 2 rows of signs going round the tablet) Transcription of Linear A characters on artefact IO Ka 2 yielded strings under two distinct rows of clusters:
a. A-TA-I *301 WA-JA |JA-DI-KI-TU |JA-SA-SA-RA-ME|U-NA-KA-NA-SI|I-PI-NA-MA
b. SI-RU-TE |TA-NA-RA-TE-U-TI-NU | I-DA $\mid$

Image 276. Standardised inscription of IO Ra 2, obtained from GORILA 5

### 3.276.1 Common Semitic / Middle Egyptian



Table 276.1.1. Combination of clusters from IO Ka 2 (a)

| S-R-T |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| T-N-R-T-U-T-N |  |  |  | R-T |  |
| T-N-R-T-U-T | T-N-R-T-U | T-N-R-T |  |  |  |
| T-N-R | T-N | N-R-T-U-T-N |  |  |  |
| N-R-T-U-T | N-R-T-U | N-R-T |  |  |  |
| N-R | R-T-U-T-N | R-T-U-T |  |  |  |
| R-T-U | R-T | T-U-T-N |  |  |  |
| T-U-T | T-U | U-T |  |  |  |
| U-T-N | T-N |  |  |  |  |
|  |  |  |  |  |  |

Table 276.1.2. Combination of clusters from IO Za 2 (b)

### 3.276.2 Hittite

| A-TA-I |  |  |
| :---: | :---: | :---: |
| A-TA |  | TA-I |
| WA-JA |  |  |
| JA-DI-KI-TU |  |  |
| JA-DI-KI | JA-DI | DI-KI |
| DI-KI-TU | KI-TU |  |
| JA-SA-SA-RA-ME |  |  |
| JA-SA-SA-RA | JA-SA-SA | JA-SA |
| SA-SA-RA-ME | SA-SA-RA | SA-SA |
| SA-RA-ME | SA-RA | RA-ME |
| U-NA-KA-NA-SI |  |  |
| U-NA-KA-NA | U-NA-KA | U-NA |
| NA-KA-NA-SI | NA-KA-NA | NA-KA |
| KA-NA-SI | KA-NA | NA-SI |
| I-PI-NA-MA |  |  |
| I-PI-NA | I-PI | PI-NA |
| PI-NA-MA | NA-MA |  |

Table 276.2.1. Combination of clusters from IO Za 2 (a)

| SI-RU-TE |  |  |  |
| :---: | :---: | :---: | :---: |
| SI-RU |  |  |  |
| TA-NA-RA-TE-U-TI-NU |  |  |  |
| TA-NA-RA-TE-U-TI | TA-NA-RA-TE-U | RU-TE |  |
| TA-NA-RA | TA-NA | NA-RA-TE-U-TI-NU |  |
| NA-RA-TE-U-TI | NA-RA-TE-U | NA-RA-TE |  |
| NA-RA | RA-TE-U-TI-NU | RA-TE-U-TI |  |
| RA-TE-U | RA-TE | TE-U-TI-NU |  |
| TE-U-TI | TE-U | U-TI |  |
| U-TI-NU | TI-NU |  |  |
|  |  |  |  |

Table 276.2.2. Combination of clusters from IO Za 2 (b)

### 3.277 Artefact IO Za 3

Transcription of Linear A characters on artefact IO Za 3 yielded strings under one distinct row of clusters:
a. |A-TA-I *301 WA-JA | A-U |

10 $/ \mathrm{at}$


Image 277. Standardised inscription of IO Za 3 , obtained from GORILA 5
3.277.1 Common Semitic / Middle Egyptian

| A-T-I |  |  |
| :---: | :---: | :---: |
| A-T | T-I |  |
|  | $\mathbf{W - J}$ |  |
|  | A-U |  |

Table 277.1.1. Combination of clusters from IO Za 3 (a)

### 3.277.2 Hittite

| A-TA-I |  |  |
| :---: | :---: | :---: |
| A-TA | TA-I |  |
| WA-JA |  |  |
| A- $\mathbf{U}$ |  |  |

Table 277.2.1. Combination of clusters from IO Za 3 (a)

### 3.278 Artefact IO Za 5

Transcription of Linear A characters on artefact IO Za 5 yielded strings under one distinct row of clusters:
a. |I-JA-RE-DI-JA |I-JA-PA|

I() 'harij


Image 278. Standardised inscription of IO Za 5 , obtained from GORILA 5

### 3.278.1 Common Semitic / Middle Egyptian

| I-J-R-D-J |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| I-J-R-D | I-J-R | I-J |  |  |
| J-R-D-J | J-R-D | J-R |  |  |
| R-D-J | R-D | D-J |  |  |
| I-J-P |  |  |  | J-P |

Table 278.1.1. Combination of clusters from IO Za 5 (a)

### 3.278.2 Hittite

| I-JA-RE-DI-JA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| I-JA-RE-DI | I-JA-RE | I-JA |  |  |
| JA-RE-DI-JA | JA-RE-DI | JA-RE |  |  |
| RE-DI-JA | RE-DI | DI-JA |  |  |
| I-JA-PA |  |  |  | JA-PA |

Table 278.2.1. Combination of clusters from IO Za 5 (a)

### 3.279 Artefact IO Za 6

Transcription of Linear A characters on artefact IO Za 6 yielded strings under three distinct rows of clusters:
a. TA-NA-I *301 U-TI-NU |
b. I-NA-TA-I-ZU-DI-SI-KA |
c. JA-SA-SA-RA-ME

## 1) $\mathrm{Ha} \mathrm{B}^{6}$

Image 279. Standardised inscription of IO Za 6, obtained from GORILA 5

### 3.279.1 Common Semitic / Middle Egyptian

| T-N-I |  |  |
| :---: | :---: | :---: |
| T-N |  | N-I |
| U-T | U-T |  |
| U-N |  |  |

Table 279.1.1. Combination of clusters from IO Za 6 (a)

| I-N-T-I-Z-D-S-K |  |  |
| :---: | :---: | :---: |
| I-N-T-I-Z-D-S | I-N-T-I-Z-D | I-N-T-I-Z |
| I-N-T-I | I-N-T | I-N |
| N-T-I-Z-D-S-K | N-T-I-Z-D-S | N-T-I-Z-D |
| N-T-I-Z | N-T-I | N-T |
| T-I-Z-D-S-K | T-I-Z-D-S | T-I-Z-D |
| T-I-Z | T-I | I-Z-D-S-K |
| I-Z-D-S | I-Z-D | I-Z |
| Z-D-S-K | Z-D-S | Z-D |
| D-S-K | D-S | S-K |

Table 279.1.2. Combination of clusters from IO Za 6 (b)

| J-S-S-R-M |  |  |
| :---: | :---: | :---: |
| J-S-S-R | J-S-S | J-S |
| S-S-R-M | S-S-R | S-S |
| S-R-M | S-R | R-M |

Table 279.1.3. Combination of clusters from IO Za 6 (c)

### 3.279.2 Hittite

| TA-NA-I |  |  |
| :---: | :---: | :---: |
| TA-NA |  | NA-I |
|  | U-TI-NU |  |
| U-TI |  | TI-NU |

Table 279.2.1. Combination of clusters from IO Za 6 (a)

| I-NA-TA-I-ZU-DI-SI-KA |  |  |
| :---: | :---: | :---: |
| I-NA-TA-I-ZU-DI-SI | I-NA-TA-I-ZU-DI | I-NA-TA-I-ZU |
| I-NA-TA-I | I-NA-TA | I-NA |
| NA-TA-I-ZU-DI-SI-KA | NA-TA-I-ZU-DI-SI | NA-TA-I-ZU-DI |
| NA-TA-I-ZU | NA-TA-I | NA-TA |
| TA-I-ZU-DI-SI-KA | TA-I-ZU-DI-SI | TA-I-ZU-DI |
| TA-I-ZU | TA-I | I-ZU-DI-SI-KA |
| I-ZU-DI-SI | I-ZU-DI | I-ZU |
| ZU-DI-SI-KA | ZU-DI-SI | ZU-DI |
| DI-SI-KA | DI-SI | SI-KA |

Table 279.2.2. Combination of clusters from IO Za 6 (b)

| JA-SA-SA-RA-ME |  |  |
| :---: | :---: | :---: |
| JA-SA-SA-RA | JA-SA-SA | JA-SA |
| SA-SA-RA-ME | SA-SA-RA | SA-SA |
| SA-RA-ME | SA-RA | RA-ME |

Table 279.2.3. Combination of clusters from IO Za 6 (c)

### 3.280 Artefact IO Za 7

Transcription of Linear A characters on artefact IO Za 7 yielded strings under one distinct row of clusters:
a. A-TA-I *301 WA-JA |JA-TI *321|
10) \%at


Image 280. Standardised inscription of IO Za 7 , obtained from GORILA 5

### 3.280.1 Common Semitic / Middle Egyptian

| A-T-I |  |
| :---: | :---: |
| A-T | T-I |


| $\mathbf{W}-\mathbf{J}$ |
| :---: |
| $\mathbf{J - T}$ |

Table 280.1.1. Combination of clusters from IO Za 7 (a)
3.280.2 Hittite

| A-TA-I |  |  |
| :---: | :---: | :---: |
| A-TA | TA-I |  |
|  | WA-JA |  |
|  | JA-TI |  |

Table 280.2.1. Combination of clusters from IO Za 7 (a)

### 3.281 Artefact IO Za 8

Transcription of Linear A characters on artefact IO Za 8 yielded a string under one distinct row of cluster:
a. |A-NA-TI *301 WA-JA $\mid$

10 \%n!

Image 281. Standardised inscription of IO Za 8 , obtained from GORILA 5
3.281.1 Common Semitic / Middle Egyptian

| A-N-T |  |
| :---: | :---: |
| A-N | N-T |
|  | W-J |

Table 281.1.1. Combination of clusters from IO Za 8 (a)

### 3.281.2 Hittite

| A-NA-TI |  |
| :---: | :---: |
| A-NA | NA-TI |
| WA-JA |  |

Table 281.2.1. Combination of clusters from IO Za 8 (a)

### 3.282 Artefact IO Za 9

Transcription of Linear A characters on artefact IO Za 9 yielded strings under two distinct rows of clusters:
a. JA-SA-SA |
b. U-NA-KA

## (1) $7 / 15$

Image 282. Standardised inscription of IO Za 9, obtained from GORILA 5
3.282.1 Common Semitic / Middle Egyptian

|  | J-S-S |
| :---: | :---: |
| J-S | S-S |

Table 282.1.1. Combination of clusters from IO Za 9 (a)

| $\mathbf{U}-\mathbf{N}-\mathrm{K}$ |  |
| :---: | :---: |
| $\mathrm{U}-\mathrm{N}$ | $\mathrm{N}-\mathrm{K}$ |

Table 282.1.2. Combination of clusters from IO Za 9 (b)
3.282.2 Hittite

| JA-SA-SA |  |  |
| :---: | :---: | :---: |
| JA-SA | SA-SA |  |

Table 282.2.1. Combination of clusters from IO Za 9 (a)

|  | U-NA-KA |
| :---: | :---: |
| U-NA | NA-KA |

Table 282.2.2. Combination of clusters from IO Za 9 (b)

### 3.283 Artefact IO Za 10

Transcription of Linear A characters on artefact IO Za 10 yielded a string under one distinct row of cluster:
a. |A-SA-SA-RA-ME |
10) \% 10

Image 283. Standardised inscription of IO Za 10, obtained from GORILA 5

### 3.283.1 Common Semitic / Middle Egyptian

| A-S-S-R-M |  |  |
| :---: | :---: | :---: |
| A-S-S-R | A-S-S | A-S |
| S-S-R-M | S-S-R | S-S |
| S-R-M | S-R | R-M |

Table 283.1.1. Combination of clusters from IO Za 10 (a)

### 3.283.2 Hittite

| A-SA-SA-RA-ME |  |  |  |
| :---: | :---: | :---: | :---: |
| A-SA-SA-RA | A-SA-SA | A-SA |  |
| SA-SA-RA-ME | SA-SA-RA | SA-SA |  |
| SA-RA-ME | SA-RA | RA-ME |  |

Table 283.2.1. Combination of clusters from IO Za 10 (a)

### 3.284 Artefact KH 79 + 89

Transcription of Linear A characters on artefact KH $79+89$ yielded strings under three distinct rows of clusters:
a. $|\mathrm{MI}-\mathrm{NA}|$
b. |PA-TA $\mid$ A-RA $\mid$
c. |PA-DA-NI|
(11 29)+89)


Image 284. Standardised inscription of KH $79+89$, obtained from GORILA 5

### 3.284.1 Common Semitic / Middle Egyptian

## M-N

Table 284.1.1. Combination of clusters from KH $79+89$ (a)

| P-T |
| :---: |
| A-R |

Table 284.1.2. Combination of clusters from KH $79+89$ (b)

| P-D-N |  |
| :---: | :---: |
| P-D | D-N |

Table 284.1.3. Combination of clusters from KH $79+89$ (c)

### 3.284.2 Hittite

## MI-NA

Table 284.2.1. Combination of clusters from KH $79+89$ (a)

| PA-TA |
| :---: |
| A-RA |

Table 284.2.2. Combination of clusters from KH $79+89$ (b)

| PA-DA-NI |  |
| :---: | :---: |
| PA-DA | DA-NI |

Table 284.2.3. Combination of clusters from KH $79+89$ (c)

### 3.285 Artefact KH 88

Transcription of Linear A characters on artefact KH 88 yielded strings under two distinct rows of clusters:
a. QA-NU-MA | QI *118|
b. PU-DE


Image 285. Standardised inscription of KH 88, obtained from GORILA 5
3.285.1 Common Semitic / Middle Egyptian

| Q-N-M |  |
| :---: | :---: |
| Q-N | N-M |

Table 285.1.1. Combination of clusters from KH 88 (a)
P-D

Table 285.1.2. Combination of clusters from KH 88 (b)
3.285.2 Hittite

| QA-NU-MA |  |  |
| :---: | :---: | :---: |
| QA-NU | NU-MA |  |

Table 285.2.1. Combination of clusters from KH 88 (a)

## PU-DE

Table 285.2.2. Combination of clusters from KH 88 (b)

### 3.286 Artefact KH 90

Transcription of Linear A characters on artefact KH 90 yielded a string under one distinct row of cluster:
a. MA-TA-RI-TA

Kill 90


.3
] verer.
Image 286. Standardised inscription of KH 90, obtained from GORILA 5
3.286.1 Common Semitic / Middle Egyptian

| M-T-R-T |  |  |
| :---: | :---: | :---: |
| M-T-R | M-T | T-R |
| T-R-T | R-T |  |

Table 286.1.1. Combination of clusters from KH 90 (a)
3.286.2 Hittite

| MA-TA-RI-TA |  |  |
| :---: | :---: | :---: |
| MA-TA-RI | MA-TA | TA-RI |
| TA-RI-TA | RI-TA |  |

Table 286.2.1. Combination of clusters from KH 90 (a)

### 3.287 Artefact KH 91

Transcription of Linear A characters on artefact KH 91 yielded a string under one distinct row of cluster:
a. PA-TU|

Kil 9.1


Image 287. Standardised inscription of KH 91, obtained from GORILA 5
3.287.1 Common Semitic / Middle Egyptian

## P-T

Table 287.1.1. Combination of clusters from KH 91 (a)

## PA-TU

Table 287.2.1. Combination of clusters from KH 91 (a)

### 3.288 Artefact MA 10b

Transcription of Linear A characters on artefact MA 10b yielded a string under one distinct row of cluster:
a. |DU-PI-TE-WA $\mid$


Image 288. Standardised inscription of MA 10b, obtained from GORILA 5
3.288.1 Common Semitic / Middle Egyptian

| D-P-T-W |  |  |
| :---: | :---: | :---: |
| D-P-T | D-P | P-T |
| P-T-W | T-W |  |

Table 288.1.1. Combination of clusters from MA 10b (a)
3.288.2 Hittite

| DU-PI-TE-WA |  |  |
| :---: | :---: | :---: |
| DU-PI-TE | DU-PI | PI-TE |
| PI-TE-WA | TE-WA |  |

Table 288.2.1. Combination of clusters from MA 10b (a)

### 3.289 Artefact MI 2

Transcription of Linear A characters on artefact MI 2 yielded a string under one distinct row of cluster:
a. DU-KA
$\boldsymbol{M I} 9$


Image 289. Standardised inscription of MI 2, obtained from GORILA 5

## D-K

Table 289.1.1. Combination of clusters from MI 2 (a)
3.289.2 Hittite

## DU-KA

Table 289.2.1. Combination of clusters from MI 2 (a)

### 3.290 Artefact SY Za 1

Transcription of Linear A characters on artefact SY Za 1 yielded strings under one distinct row of clusters:
a. |A-TA-I *301 WA-JA | I-DA-MI |

SY Yall


Image 290. Standardised inscription of SY Za 1, obtained from GORILA 5

### 3.290.1 Common Semitic / Middle Egyptian

| A-T-I |  |  |
| :---: | :---: | :---: |
| A-T | T-I |  |
|  | W-J |  |
| I-D-M |  |  |
| I-D |  | D-M |

Table 290.1.1. Combination of clusters from SY Za 1 (a)

### 3.290.2 Hittite

| A-TA-I |  |  |
| :---: | :---: | :---: |
| A-TA |  | TA-I |
|  | WA-JA |  |
| I-DA-MI |  |  |
| I-DA |  | DA-MI |

Table 290.2.1. Combination of clusters from SY Za 1 (a)

### 3.291 Artefact SY Za 2a

Transcription of Linear A characters on artefact SY Za 2a yielded strings under one distinct row of clusters:
a. A-TA-I *301 WA-JA |JA-SU-MA-TU |

## SY Has

Image 291. Standardised inscription of SY Za 2a, obtained from GORILA 5

### 3.291.1 Common Semitic / Middle Egyptian

| A-T-I |  |  |  | T-I |
| :---: | :---: | :---: | :---: | :---: |
| A-T | W-J |  |  |  |
| J-S-M-T |  |  |  |  |
| J-S-M | J-S | S-M |  |  |
| S-M-T | M-T |  |  |  |

Table 291.1.1. Combination of clusters from SY Za 2a (a)
3.291.2 Hittite

| A-TA-I |  |  |  | TA-I |
| :---: | :---: | :---: | :---: | :---: |
| A-TA | WA-JA |  |  |  |
| JA-SU-MA-TU |  |  |  |  |
| JA-SU-MA | JA-SU | SU-MA |  |  |
| SU-MA-TU | MA-TU |  |  |  |

Table 291.2.1. Combination of clusters from SY Za 2a (a)

### 3.292 Artefact SY Za 2b

Transcription of Linear A characters on artefact SY Za 2 b yielded a string under one distinct row of cluster:
a. U-NA-KA-NA-SI


Image 292. Standardised inscription of SY Za 2b, obtained from GORILA 5

### 3.292.1 Common Semitic / Middle Egyptian

| U-N-K-N-S |  |  |
| :---: | :---: | :---: |
| U-N-K-N | U-N-K | U-N |
| N-K-N-S | N-K-N | N-K |
| K-N-S | K-N | N-S |

Table 292.1.1. Combination of clusters from SY Za 2 b (a)

### 3.292.2 Hittite

| U-NA-KA-NA-SI |  |  |
| :---: | :---: | :---: |
| U-NA-KA-NA | U-NA-KA | U-NA |


| NA-KA-NA-SI | NA-KA-NA | NA-KA |
| :---: | :---: | :---: |
| KA-NA-SI | KA-NA | NA-SI |

Table 292.2.1. Combination of clusters from SY Za 2b (a)

### 3.293 Artefact SY Za 2d

Transcription of Linear A characters on artefact SY Za 2d yielded a string under one distinct row of cluster:
a. A-JA


Image 293. Standardised inscription of SY Za 2d, obtained from GORILA 5
3.293.1 Common Semitic / Middle Egyptian

## A-J

Table 293.1.1. Combination of clusters from SY Za 2d (a)

### 3.293.2 Hittite

## A-JA

Table 293.2.1. Combination of clusters from SY Za 2d (a)

### 3.294 Artefact SY Za 3

Transcription of Linear A characters on artefact SY Za 3 yielded strings under one distinct row of clusters:
a. A-TA-I *301 WA | SI-RU-TE
sy \%as


Image 294. Standardised inscription of SY Za 3, obtained from GORILA 5

### 3.294.1 Common Semitic / Middle Egyptian

| A-T-I |  |  |
| :---: | :---: | :---: |
| A-T |  | T-I |
|  | S-R-T |  |
| S-R |  | R-T |

Table 294.1.1. Combination of clusters from SY Za 3 (a)

| A-TA | TA-I |  |
| :---: | :---: | :---: |
| SI-RU | SI-RU-TE |  |
| SU-TE |  |  |

Table 294.2.1. Combination of clusters from SY Za 3 (a)

Overall, this section has presented all possible combinations of clusters, taking into account the various cluster segmentation length of the respective target languages, from 294 Linear A artefacts analysed. All the above cluster combinations will then be compared against the dictionaries of the three target languages, where potential word-cluster matches will be listed out in the next section.

## CHAPTER FOUR: WORD-CLUSTER MATCHES

In this section, the datasets of word-matches with reconstructed Linear A clusters are grouped according to the respective languages. This will enable a clearer overall view of the possible words, and their meanings, within each artefact, which can then enable a tentative understanding or translation of individual artefacts, taking into account their discovery location too. Should there be no word-cluster match from a particular artefact for a particular language, there will be no data presented in that case.

### 4.1 Artefact HT 1

> | K-R: |
| :---: |
| kir meaning "frog" |
| kVr meaning "dry(ing)" |
| D-D: |
| did meaning "elder", "honorable title"" |
| dīd meaning "kind of clothes" |
| K-P: "go away" |
| kVpa meaning "g-N: |
| PVnV meaning "side, direction" |
| pan meaning "face" |
| A-R: |
| ār meaning "greens, vegetables" |

Dataset 4.1.1. Cluster-word matches with Common Semitic from HT 1

> KI-RO: kir meaning "heart; center, core" KU-PA: kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit" A-RA: ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash" ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"

### 4.2 Artefact HT 2

## K-R:

```
kār meaning "single mountain, hill"
    kVrV meaning "call, shout"
    kVr meaning "dry(ing)"
                            T-N:
țVnV meaning "weave", "tie, plait"
```

Dataset 4.2.1. Cluster-word matches with Common Semitic from HT 2

## A-KA:

ak meaning "die; be killed; be legally executed"
KA-RU:
karū meaning "early; formerly, earlier; already; hitherto, up to now"
KI-RE:
kir meaning "heart; center, core"
Dataset 4.2.2. Cluster-word matches with Hittite from HT 2

```
                    R-T:
rT meaning "now, but"
                            R-T-N:
rTn meaning "now, but"
r Tn meaning "whither?"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)"
tni meaning "old age" / "grow old" / "signs of old age (external)"
Dataset 4.2.3. Cluster-word matches with Middle Egyptian from HT 2
```


### 4.3 Artefact HT 3

```
D-N:
dīn meaning "long rain" dVn meaning "be bent" / "be strong" / "cut off"
M-R:
mur meaning "go away" / "dig"
S-T:
śVt meaning "tie, weave"
T-R:
tVr meaning "push gently"
tVrV meaning "lift"
tūr meaning "turn" / "flow"
```

```
tur meaning "run fast", "hurry, hasten"
    K-P:
    kVpa` meaning "go away"
    P-N:
pVnV meaning "side, direction"
        pan meaning "face"
    M-D
madi meaning "bronze vessel"
```

Dataset 4.3.1. Cluster-word matches with Common Semitic from HT 3

MU-RU:
muri meaning "grape(s)" ?
KU-PA:
kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.3.2. Cluster-word matches with Hittite from HT 3

M-R
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake"/
"libation trough" / "bind" / "milk jar"
S-T:
ST meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official"
Dataset 4.3.3. Cluster-word matches with Middle Egyptian from HT 3

### 4.4 Artefact HT 4

A-R:
ār meaning "greens, vegetables"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dur meaning "drip", "flow abundantly" dūr meaning "turn"

P-R:
pVr meaning "break" / "forbid, refuse" / "fly", "flee" $\mathrm{pa}{ }^{\mathrm{r}}$ meaning "rat"

T-P:
ṭVp meaning "jump" / "take, grasp", "clap", "give", "stretch hand"
P-S:
pVs meaning "destroy, break"
pVî meaning "spread", "smear", "scatter" / "distribute"

Dataset 4.4.1. Cluster-word matches with Common Semitic from HT 4

## KA-A:

ka meaning "this (one), the (following) one; my, mine, ours"
A-RE:
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"

## PA-RE:

parā meaning "blown air, breath, breathing, blast"
parā meaning "further(more), in addition" (adverb);
"forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)
Dataset 4.4.2. Cluster-word matches with Hittite from HT 4

T-K-A:
tkA meaning "illumine" / "torch, taper, flame"
K-A:
KA meaning "bull" / "soul, spirit, essence (of a being), personality, fortune, will (of king), kingship"
kA meaning "so, then"
K-A-R:
kAr meaning "shrine"
A-R:
Ar meaning "drive away (from)" /"drive away"
D-R-T:
DRT meaning "hand, trunk (of elephant), handle (of jar)" / "hand" / "harm"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
R-T:
rT meaning "now, but"
P-S:
psi meaning "cook"
Dataset 4.4.3. Cluster-word matches with Middle Egyptian from HT 4

### 4.5 Artefact HT 5

M-S:
mVšV meaning "rob"

Dataset 4.5.1. Cluster-word matches with Common Semitic from HT 5

MA-SI:
masi meaning "how many (much)?" (interrogative/relative adjective)
Dataset 4.5.2. Cluster-word matches with Hittite from HT 5

W-D:
wD meaning "act as pilot, pilot" / "inscription" / "jug" / "stela" /
"(written) decree, despatch" / "allot, decree (something to), entrust (a matter)"
Dataset 4.5.3. Cluster-word matches with Middle Egyptian from HT 5

### 4.6 Artefact HT 6a

> | K-P: |
| :---: |
| kVpa" meaning "go away" |
| D-T: |
| dVt meaning "beat, push" |
| T-R: |
| tVr meaning "push gently" |
| tVrV meaning "lift" |
| P-T: |
| pVt meaning "cloth" |
| R-D: |
| racd meaning "storm, thunder" |
| D-N: |
| dīn meaning "long rain" |
| dVn meaning "be bent" / "be strong" /"cut off" |
| K-P: |
| kVpa meaning "go away" |
| P-T: |
| pVt meaning "cloth" |

Dataset 4.6.1. Cluster-word matches with Common Semitic from HT 6a

PI-TA:
pita meaning "take, carry, convey, move, bring, adduce"
Dataset 4.6.2. Cluster-word matches with Hittite from HT 6a

## R-D:

rdi meaning "give, put, place, appoint, cause, permit, grant" rd meaning "foot"

D-Q-R:
dqr meaning "press (against), exclude (from), a process in spinning"
D-Q:
dq meaning "flour, powder"
Dataset 4.6.3. Cluster-word matches with Middle Egyptian from HT 6a

### 4.7 Artefact HT 6b



Dataset 4.7.1. Cluster-word matches with Common Semitic from HT 6b

MA-RI:
māri meaning "manual tool or weapon"
Dataset 4.7.2. Cluster-word matches with Hittite from HT 6b

```
W-D-N:
WDN meaning "offer (to)" / "instal, record (royal titulary)" / "be heavy" / "weigh (on someone, of affairs)"
W-D:
wD meaning "act as pilot, pilot" / "inscription" / "jug" / "stela" /
"(written) decree, despatch" / "allot, decree (something to), entrust (a matter)" wAD meaning "papyriform column"
D-N:
dn meaning "cut off (heads), kill (someone)"
```

$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"

## T-S:

Ts meaning "sandbank, drought" / " model (face of sphinx), build (monuments)" / "neck" / "vertebra, spine" / "speech, utterance, phrase, sentence, maxim" / "join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)"/
"clot, become constricted" / "tie (knot), tie on (fillet), weave (cloth)"/
"marshal (troops), levy (troops), order, arrange (rites), knot itself up" ts meaning "smash (heads), grind (corn), split (wood)"

M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" /
"libation trough" / "bind" / "milk jar"
R-S:
rs meaning "wake, be watchful, vigilant"
D-D:
Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect"/ "stable, enduring" / "the djed column" DdA meaning "fat"

D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)" dmA meaning "cut off (heads)" / "bind together" / "stretch, be stretched out"

S-M:
smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" /

| "scalp, side" / "ramp?"/ "partake (of), make ready (a boat)" / |
| :---: |
| "unite, join (a company), associate (with), arrive (in)"" |
| sm meaning "deed, event, affair, pastime" |
| sAm meaning "burn up" (causative) |
| Sma meaning "Upper Egyptian barley" / "make music"" |
| N-N: |
| nn meaning "not" (negative particle) |

Dataset 4.7.3. Cluster-word matches with Middle Egyptian from HT 6b

### 4.8 Artefact HT 7a

## I-R:

iru meaning "caviar"
T-N:
ṭVnV meaning "weave", "tie, plait"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
dār meaning "dwelling", "house", "granary"

## T-T:

$\underline{t} \mathrm{~V} \underline{\mathrm{t}} \mathrm{V}$ meaning "cacare" $t \mathrm{~V}^{\mathrm{c}}-\underline{t} \mathrm{~V}^{\mathrm{c}}$ meaning "trample"
Dataset 4.8.1. Cluster-word matches with Common Semitic from HT 7a

T-N-T:
Tnt meaning "difference (between x and y )"
tnT meaning "spur - winged plover"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
Dataset 4.8.2. Cluster-word matches with Middle Egyptian from HT 7a

### 4.9 Artefact HT 7b

T-N:
ṭVnV meaning "weave", "tie, plait"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.9.1. Cluster-word matches with Common Semitic from HT 7b

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dataset 4.9.2. Cluster-word matches with Middle Egyptian from HT 7b

### 4.10 Artefact HT 8a

K-R:
kār meaning "single mountain, hill"
$\mathrm{kVVV}^{\mathrm{o}}$ meaning "call, shout"
kVr meaning "drying"
$\mathrm{kVra}^{\mathrm{c}}$ meaning "strike (with a stick)"
S-K-R:
šVḳVr meaning "pierce"
S-K:
šVḳ meaning "drink", "give a drink"
K-R:
$\mathrm{kVrV}^{0}$ meaning "call, shout"
kVr meaning "drying"
$\mathrm{kVra}^{\mathrm{c}}$ meaning "strike (with a stick)"
K-R:
$\mathrm{kVrV}^{\circ}$ meaning "call, shout"
$\mathrm{k} V r$ meaning "drying"
T-N:
$t ̦ \mathrm{VnV}$ meaning "weave", "tie, plait"
Dataset 4.10.1. Cluster-word matches with Common Semitic from HT 8a

KA-RA-TI:
karat meaning "interior, innards, entrails, womb; inner being, nature, character"

KI-RA:
kir meaning "heart; center, core"
KI-RE:
kir meaning "heart; center, core"
Dataset 4.10.2. Cluster-word matches with Hittite from HT 8a
R-T:
rT meaning "now, but"
S-K-R:
skr meaning "Sokar (god)" (divinity) / "adorn, decorate"
S-K:
sk meaning "wipe oout, wipe, wipe away" / "fell (trees)"
ski meaning "destroy" / "perish" / "accusation"
R-T-N:
rTn meaning "now, but"
R-T:
rT meaning "now, but"
T-N:
tn meaning "this"

Dataset 4.10.3. Cluster-word matches with Middle Egyptian from HT 8a

### 4.11 Artefact HT 8b

> S-P:
> šup meaning "tie", "plait", "sew"
> šūp meaning "smell, sniff around"/ "grind"
> sVpV" meaning "falcon"
> K-P:
> kVpa meaning "go away"

Dataset 4.11.1. Cluster-word matches with Common Semitic from HT 8b

## S-P:

sp meaning "misdeed, fault" / "medicine, dose, portion (of food)"/
"be blind, make blind"/"flow out, depart (of morbid fluid, evil spirit)" /
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
Dataset 4.11.2. Cluster-word matches with Middle Egyptian from HT 8b

### 4.12 Artefact HT 9a

S-R:
šār meaning "wind"
D-N:
dīn meaning "long rain"
dVn meaning "be bent" / "be strong" / "cut off"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dir meaning "drip", "flow abundantly"

A-R:
ār meaning "greens, vegetables"
Dataset 4.12.1. Cluster-word matches with Common Semitic from HT 9a
A-RU:
aru meaning "high""
ar meaning "stand (by), be stationed; be present, occur""
ar meaning "come (to), arrive (at), be at hand"

Dataset 4.12.2. Cluster-word matches with Hittite from HT 9a

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
P-D:
pd meaning "knee"
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" / "stretch out (man on ground)" /
"extend (oneself in effort), draw (bow), diffuse (perfume)"
Dataset 4.12.3. Cluster-word matches with Middle Egyptian from HT 9a

### 4.13 Artefact HT 9b

## A-S:

${ }^{\circ}$ aši ${ }^{i}$ meaning "iron"
${ }^{c} a s ̂ ~ m e a n i n g ~ " b i t e " ~$
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dir meaning "drip", "flow abundantly"

D-N:
dīn meaning "long rain"
dVn meaning "be bent" / "be strong" / "cut off"
Dataset 4.13.1. Cluster-word matches with Common Semitic from HT 9b

A-SI:
as meaning "remain, stay, be left"
Dataset 4.13.2. Cluster-word matches with Hittite from HT 9b

$$
\begin{gathered}
\text { P-D: } \\
\text { pd meaning "knee" } \\
\text { pD meaning "stretch (cord in foundation ceremony)"/ } \\
\text { "measure (for pigment)" / "stretch out (man on ground)" / } \\
\text { "extend (oneself in effort), draw (bow), diffuse (perfume)" } \\
\text { A-S: } \\
\text { aS meaning "summon" / "cedar" / "cedar - oil" / "groan" / } \\
\text { "act as pilot, pilot" }
\end{gathered}
$$

### 4.14 Artefact HT 10a

N-S:
niš meaning "man"
$n V s ̣$ meaning "dictate (a letter)"
S-M:
šamā ${ }^{\circ}$ meaning "sky"
šVma ${ }^{\text {c }}$ meaning "hear"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.14.1. Cluster-word matches with Common Semitic from HT 10a

K-N-S:
kns meaning "pubic region?"
S-M:
smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" /
"scalp, side" / "ramp?" / "partake (of), make ready (a boat)" /
"unite, join (a company), associate (with), arrive (in)"
sm meaning "deed, event, affair, pastime"
sAm meaning "burn up" (causative)
Sma meaning "Upper Egyptian barley" / "make music"
D-R-D:

## DrD meaning "leaf"

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
Dataset 4.14.2. Cluster-word matches with Middle Egyptian from HT 10a

### 4.15 Artefact HT 10b

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"

T-R:
tVr meaning "push gently"
$\mathrm{tVrV}{ }^{\text {a }}$ meaning "lift"
K-S:
$\mathrm{ka}^{\circ}$ s meaning "vessel for beer", "bowl"
kVŝa ${ }^{3}$ meaning "peel"
kVî meaning "pierce"
S-R:
šār meaning "wind"
T-N:
$t \underline{V n V}$ meaning "weave", "tie, plait"
Dataset 4.15.1. Cluster-word matches with Common Semitic from HT 10b

SA-RU:
saru meaning "pillage, plunder, sack; spoils, loot" sāru meaning "raging ailment, hectic, inflammation"
Dataset 4.15.2. Cluster-word matches with Hittite from HT 10b

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
T-N-T:
Tnt meaning "difference (between x and y )" tnT meaning "spur - winged plover"

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"

Dataset 4.15.3. Cluster-word matches with Middle Egyptian from HT 10b

### 4.16 Artefact HT 11a

A-R:
ār meaning "greens, vegetables"
K-R:
kār meaning "single mountain, hill"
kVrV meaning "call, shout"
kVr meaning "drying"
Dataset 4.16.1. Cluster-word matches with Common Semitic from HT 11a

```
A-RU:
aru meaning "high"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"
A-SU:
as meaning "remain, stay, be left"
Dataset 4.16.2. Cluster-word matches with Hittite from HT 11a
```

A-R:
Ar meaning "drive away (from)"
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"

Dataset 4.16.3. Cluster-word matches with Middle Egyptian from HT 11a

### 4.17 Artefact HT 11b

## D-N:

dVn meaning "be bent" / "be strong" / "cut off"
Z-N:
zVn meaning "rain (verb)"
$\mathrm{zVna}{ }^{\mathrm{o}}$ meaning "keep from urinating"
Dataset 4.17.1. Cluster-word matches with Common Semitic from HT 11b

## S-Q-R:

sqr meaning "offer, present" / "knead (dough), get rid of (something), offer, present" /
"step out (of feet in dance), work (metal), set up (stairway)" /
"strike, strike down, clap (hands), grasp (hand)" / "wound, injury" /
Dataset 4.17.2. Cluster-word matches with Middle Egyptian from HT 11b

### 4.18 Artefact HT 12

> | D-T: |
| :---: |
| dVt meaning "beat, push" |
| T-N: |
| ṭVnV meaning "weave", "tie, plait" |

Dataset 4.18.1. Cluster-word matches with Common Semitic from HT 12

## D-T:

Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever"/ "serf" / "body, image, bodily form (of god, statues), self"
Dataset 4.18.2. Cluster-word matches with Middle Egyptian from HT 12

### 4.19 Artefact HT 13

D-T:
dVt meaning "beat, push"
T-T:
$t \mathrm{Vt} \mathrm{V}{ }^{\mathrm{s}}$ meaning "cacare"
$t ̣^{\mathrm{c}}-\mathrm{t} \mathrm{V}^{\mathrm{c}}$ meaning "trample"
Z-N:
zVn meaning "rain (verb)" $\mathrm{zVna}{ }^{\mathrm{o}}$ meaning "keep from urinating"

D-N:
dūn meaning "remain" / "weak"
dun meaning "buzz"
dVn meaning "be bent" / "be strong" / "cut off"
N-S:
nVṣ meaning "dictate (a letter)"
Dataset 4.19.1. Cluster-word matches with Common Semitic from HT 13

## D-T:

Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" /
"serf" / "body, image, bodily form (of god, statues), self"
T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
D-S:
ds meaning "flint" / "jar" / "knife"

I-D-N:
idn meaning "proxy" / "deputy" / "serve as lieutenant - commander" / "govern" / "serve, instead of replace" / "lay out (enclosures)"

I-D:
id meaning "boy" / "assault" / "bull"
D-N: dn meaning "cut off (heads), kill (someone)"

D-N-S:
dns meaning "heaviness" / "heavy, irksome, burdensome (of years), overburdened (of stomach), weighty"
Dataset 4.19.2. Cluster-word matches with Middle Egyptian from HT 13

### 4.20 Artefact HT 14

> P-N:
> pVnV meaning "side, direction"
> pVn meaning "turn"" "let go"
> pun meaning "drive (camels)",

Dataset 4.20.1. Cluster-word matches with Common Semitic from HT 14

$$
\begin{gathered}
\hline \text { P-N: } \\
\text { pn meaning "this, he of" } \\
\text { pna meaning "turn upside down" } \\
\text { N-D: } \\
\text { nD meaning "grind" / "thread" / "protection" / "flour" }
\end{gathered}
$$

Dataset 4.20.2. Cluster-word matches with Middle Egyptian from HT 14

### 4.21 Artefact HT 16

D-N:
dīn meaning "long rain" dVn meaning "be bent" / "be strong" / "cut off"

S-P:
sVpV c meaning "falcon"
šVpVy (šVp) meaning "raise dust (of wind)"
šVpVH (šVp) meaning "ask"
Dataset 4.21.1. Cluster-word matches with Common Semitic from HT 16

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
SA-PO:
sap meaning "pluck, peel, strip, trim, stroke, strum, skim"
Dataset 4.21.2. Cluster-word matches with Hittite from HT 16

K-K:
KK meaning "be dark (of child about to be born)"
S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
Dataset 4.21.3. Cluster-word matches with Middle Egyptian from HT 16

### 4.22 Artefact HT 17

S-R:
šār meaning "wind"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.22.1. Cluster-word matches with Common Semitic from HT 17

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
S-D-R:
sDr meaning "spend the night, sleep, lie down, go to rest, be inert, inactive, do in the night" / "department (of the Residence)"

## S-D:

Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice"
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
sDA meaning "adviser?" / "travel, depart (in sense of die)"
Dataset 4.22.2. Cluster-word matches with Middle Egyptian from HT 17

### 4.23 Artefact HT 18

$$
\begin{gathered}
\text { P-S: } \\
\text { paš meaning "axe" } \\
\text { pas meaning "palm" } \\
\text { pVs meaning "destroy, break" } \\
\text { pVŝ meaning "spread", "smear", "scatter" / "distribute" } \\
\begin{array}{c}
\text { S-R: } \\
\text { šār meaning "wind" }
\end{array} \\
\hline
\end{gathered}
$$

Dataset 4.23.1. Cluster-word matches with Common Semitic from HT 18

## PA-SE:

pas meaning "swallow, devour, ingest, consume"

## SA-RA

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.23.2. Cluster-word matches with Hittite from HT 18

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.23.3. Cluster-word matches with Middle Egyptian from HT 18

### 4.24 Artefact HT 19

> S-R:
> šār meaning "wind"
> D-M:
> dVm meaning "wound" / "moan"
> dum meaning "destroy"
> dVm/dūm meaning "dwell'" "last", "stay a long time in one place"
> dūm meaning "moisten, rain continuously"
> M-D:
> madi meaning "bronze vessel"

Dataset 4.24.1. Cluster-word matches with Common Semitic from HT 19

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"

D-M-D:
dmD meaning "associate (with), join (someone), unite (lands)"/
"reassemble (dismembered body), assembly, bring together (people)"/
"accumulate (grain), compile (spell), extend (hand)" / "total, maturity"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"
Dataset 4.24.2. Cluster-word matches with Middle Egyptian from HT 19

### 4.25 Artefact HT 20

$$
\begin{gathered}
\text { P-R-S: } \\
\text { pVrVš meaning "separate" } \\
\text { P-R: } \\
\text { pVr meaning "break" / "forbid, refuse" / "fly", "flee" } \\
\text { pa }{ }^{\text {r }} \text { meaning "rat" } \\
\text { R-S: }
\end{gathered}
$$

```
rVšVc}\mathrm{ meaning "treat severely","be evil, behave badly"
    rVŝ meaning "sprinkle"
K-M:
    kūm meaning "stand up, get up"
    kVm meaning "sheep" / "burn"
    kVmV}\mp@subsup{}{}{9}\mathrm{ meaning "bind"
    K-R:
    kur meaning "ball"
    kVrV meaning "call, shout"
    kVr meaning "dry(ing)"
    S-R:
        šār meaning "wind"
```

Dataset 4.25.1. Cluster-word matches with Common Semitic from HT 20

P-R-S:
prS meaning "minium (red oxide of lead)"
R-S:
rs meaning "wake, be watchful, vigilant"
K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.25.2. Cluster-word matches with Middle Egyptian from HT 20

### 4.26 Artefact HT 21

> P-T:
> pVt meaning "cloth"

T-K-S:
tVkVs meaning "trample"
K-S:
$\mathrm{ka}^{\circ}$ s meaning "vessel for beer", "bowl"
kVî meaning "pierce"
Dataset 4.26.1. Cluster-word matches with Common Semitic from HT 21

T-K:
tkA meaning "illumine" / "torch, taper, flame"
T-K-S:
tks meaning "pierce"

K-S:
ks meaning "pose"
Dataset 4.26.2. Cluster-word matches with Middle Egyptian from HT 21

### 4.27 Artefact HT 23a

$\mathrm{K}-\mathrm{N}:$
$\mathrm{kV} \mathrm{Vna}^{\circ}$ meaning "kill"
$\mathrm{K}-\mathrm{R}:$
kVVV meaning "call, shout""
kVr meaning "dry(ing)"

Dataset 4.27.1. Cluster-word matches with Common Semitic from HT 23a

```
SA-SA:
sasa meaning "goat" sasā meaning "ornithomantic bird"
```

Dataset 4.27.2. Cluster-word matches with Hittite from HT 23a

Q-R-T:
qrt meaning "depression, hollow place"
Q-R:
qri meaning "storm, storm - cloud"
S-S:
sasa meaning "deface"
sAsA meaning "drive back, repel, force (ship over), apply (oil)
saSA meaning "make numerous, multiply" / "police, policeman" / "escort"
SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill"
sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to)
ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?"
sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/
"writing, depiction, record, papyrus roll, letter, document"

## S-M:

Sm meaning "pass (of property)" / "go (to), walk, set out, pass, set (of sun)" sm meaning "help, succour" / "deed, event, affair, pastime"
Dataset 4.27.3. Cluster-word matches with Middle Egyptian from HT 23a

### 4.28 Artefact HT 23b

N-R:
nr meaning "charge (after enemy)" / "time, return of the year"
Dataset 4.28.1. Cluster-word matches with Middle Egyptian from HT 23b

### 4.29 Artefact HT 24a

> K-P:
> $\mathrm{kVpa}{ }^{3}$ meaning "go away"
> P-R:
> pVr meaning "break" / "forbid, refuse" / "fly", "flee" pa ${ }^{\circ} \mathrm{r}$ meaning "rat"
> P-S:
> pa"š meaning "axe"
> pas meaning "palm"
> pVs meaning "destroy, break"
> pVî meaning "spread", "smear", "scatter"/ "distribute"
> $\mathrm{pVsa}{ }^{\circ}$ meaning "tear into pieces"
> S-R:
> šār meaning "wind"
> rik meaning "be thin, be weak"
> rik meaning "be thin", "be shallow"

Dataset 4.29.1. Cluster-word matches with Common Semitic from HT 24a

## KU-PA

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
PA-SA:
pas meaning "swallow, devour, ingest, consume"
KI-RA:
kir meaning "heart; center, core"
Dataset 4.29.2. Cluster-word matches with Hittite from HT 24a

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.29.3. Cluster-word matches with Middle Egyptian from HT 24a

### 4.30 Artefact HT 25a

D-N:
dīn meaning "long rain"
dVn meaning "be bent" / "be strong" / "cut off"
U-R:
${ }^{\circ}$ ur meaning "set fire"
A-R:
ār meaning "greens, vegetables"
$\mathrm{N}-\mathrm{T}$ :
$n V t^{\circ}$ meaning "go out"
D-R:
dūr meaning "turn"
dur meaning "drip", "flow abundantly"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
K-R:
kVrV meaning "call, shout"
kV r meaning "dry(ing)"
$\mathrm{kVra}{ }^{\mathrm{c}}$ meaning "strike (with a stick)"
Dataset 4.30.1. Cluster-word matches with Common Semitic from HT 25a

R-W:
rwi meaning "dance, clap (hands), palpitate (of heart)" / "advance against" /
"leave (a place)" / "expel/drive off/remove (someone, something), escape (harm)" /
"go away, depart, pass away, serve (someone)" / "vineyard?"
rw meaning "lion"
Q-N:
qn meaning "brave man" / "fat" / "offence, attack" / "mat"
D-R-W:
Drw meaning "boundary, end, limit" / "walls"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.30.2. Cluster-word matches with Middle Egyptian from HT 25a

### 4.31 Artefact HT 25b

K-R:
kur meaning "ball"
$\mathrm{k} V r V$ meaning "call, shout"
kVr meaning "dry(ing)"
T-R:
tVr meaning "push gently"
$\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
Dataset 4.31.1. Cluster-word matches with Common Semitic from HT 25b

> W-T:
> wt meaning "place of embalming" / "embalmer, bandager" / "embalm" /
> "bandage, bind" / "mummy - wrapping" / "wrappings"

## T-R:

tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

## I-T:

iTi meaning "take, take possession of, conduct, remove, arrest, conquer, spend, pass, move, rob" it meaning "barley, corn"
Dataset 4.31.2. Cluster-word matches with Middle Egyptian from HT 25b

### 4.32 Artefact HT 26a

## T-T:

$t \mathrm{t} \mathrm{tt}^{\mathrm{P}}$ meaning "cacare"
$t^{\mathrm{V}} \mathrm{V}^{\mathrm{c}}-\mathrm{t} \mathrm{V}^{\mathrm{c}}$ meaning "trample"
K-S:
kVî meaning "pierce"
kīis meaning "end, finish"
kī̄s meaning "break, split"
S-N:
šVnV ${ }^{0}$ meaning "trot"
Dataset 4.32.1. Cluster-word matches with Common Semitic from HT 26a

## KI-SE:

kis meaning "turn out to be, come about, take place, occur"
Dataset 4.32.2. Cluster-word matches with Hittite from HT 26a

## T-T:

Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
M-K-S:
mks meaning "container (for documents)" / "sceptre"
M-K:
mk meaning "behold" / "protector" / "boat" mki meaning "guard, protect, look after (horse)"

K-S:
ks meaning "pose"
S-N:
sna meaning "turn back, repulse, repel, police (district), detain, dart about (of fish)" /
"constable, policeman" / "breast" / "storm - cloud"
sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" /
"tree" / "smell (perfume), breathe (air), kiss"
Dataset 4.32.3. Cluster-word matches with Middle Egyptian from HT 26a

### 4.33 Artefact HT 26b

> | P-R: |
| :---: |
| pVr meaning "break" / "forbid, refuse" / "fly", "flee" |
| par meaning "rat" |
| Z-N: |
| zVn meaning "rain (verb)" |
| zVna ${ }^{\text { meaning "keep from urinating" }}$ |

Dataset 4.33.1. Cluster-word matches with Common Semitic from HT 26b

### 4.34 Artefact HT 27a

T-N:
tin meaning "fig tree"
ṭVnV meaning "weave", "tie, plait"
ṭin meaning "buzz, tinkle", "call"
ṭīn meaning "clay, earth, dirt"
$\mathrm{N}-\mathrm{T}$ :
nVta ${ }^{\circ}$ meaning "go out"
M-S:
mVšV meaning "rob"
S-R:
šār meaning "wind"
K-D:
kīd meaning "outside region"
S-R:
šār meaning "wind"
R-D:
racd meaning "storm, thunder"
Dataset 4.34.1. Cluster-word matches with Common Semitic from HT 27a

MI-SA-RA:
misara meaning "grain pest, weevil"

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.34.2. Cluster-word matches with Hittite from HT 27a

T-N-T:
Tnt meaning "difference (between x and y )"
tnT meaning "spur - winged plover"

## T-N:

tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

I-M:
im meaning "in, with, by means of, from, out of, as, namely, when, as though, together with" / "there, therein, therewith, therefrom" / "form, shape, side"

## M-S:

ms meaning "bring, present, bring away booty, extend (hand), take (aim)" /
"calf" / "child" / "surely, indeed" / "bouquet"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
S-R-D:
srd meaning "make grow, plant (trees), erect (monuments)"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)" rdi meaning "give, put, place, appoint, cause, permit, grant"
Dataset 4.34.3. Cluster-word matches with Middle Egyptian from HT 27a

### 4.35 Artefact HT 27b

> P-S: pa`š meaning "axe" pas meaning "palm" pVs meaning "destroy, break"

## PA-SE:

pas meaning "swallow, devour, ingest, consume"
Dataset 4.35.2. Cluster-word matches with Hittite from HT 27b

> M-D:
> mD meaning "ten" / "deep",

Dataset 4.35.3. Cluster-word matches with Middle Egyptian from HT 27b

### 4.36 Artefact HT 28a

| A-S: |
| :---: |
|  <br> ašis ${ }^{\circ}$ meaning "iron"" <br> caŝ meaning "bite" |

S-R:
šār meaning "wind"
A-R:
ār meaning "greens, vegetables"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.36.1. Cluster-word matches with Common Semitic from HT 28a

> A-SI:
> as meaning "remain, stay, be left"

SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
A-RU:
aru meaning "high"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"
Dataset 4.36.2. Cluster-word matches with Hittite from HT 28a

$$
\begin{gathered}
\text { A-S: } \\
\text { aS meaning "summon" / "cedar" / "cedar - oil" / "groan" / } \\
\text { "act as pilot, pilot" } \\
\text { As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake" / } \\
\text { "a type of cake, bread" } \\
\text { S-R: } \\
\text { sr meaning "nobleman, magistrate" / "foretell, make known" } \\
\text { R-D: } \\
\text { rd meaning "foot" / "grow" / "shoot (of tree)" }
\end{gathered}
$$

I-T:
iTA meaning "steal" / "thief"
it meaning "barley, corn"
Dataset 4.36.3. Cluster-word matches with Middle Egyptian from HT 28a

### 4.37 Artefact HT 28b

A-S:
${ }^{\circ}$ aši ${ }^{i}$ meaning "iron"
${ }^{\mathrm{c} a s ̂}$ meaning "bite"
$\mathrm{M}-\mathrm{N}$ :
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"

N-S:
nVs meaning "dictate (a letter)"
S-R:
šār meaning "wind"
P-R:
pVr meaning "break" / "forbid, refuse" / "fly, flee"
D-N:
dīn meaning "long rain"
dVn meaning "be bent" / "be strong" / "cut off"
Dataset 4.37.1. Cluster-word matches with Common Semitic from HT 28b

A-SI:
as meaning "remain, stay, be left"
SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.37.2. Cluster-word matches with Hittite from HT 28b

```
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake" /
"a type of cake, bread"
M-N-S:
mnS meaning "cartouche"
M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" /
"establish, press (with fingers)" / "so-and-so, someone"
```

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
P-R:
pr meaning "go up, ascend, be subtracted (mathematical)"
W-D-N:
wdn meaning "offer (to)" / "record (royal titulary)" / "install" / "be heavy"
W-D:
wD meaning "act as pilot, pilot" / "inscription" / "jug" / "stela" /
"(written) decree, despatch" / "allot, decree (something to), entrust (a matter)"
D-N:

Dataset 4.37.3. Cluster-word matches with Middle Egyptian from HT 28b

### 4.38 Artefact HT 29

> R-M:
> rVm meaning "roar"
> rūm meaning "be high"
> M-T:
> maṭ meaning "stick, branch"
> mVt. meaning "son"
> K-T:
> kVt meaning "weak"
> kVt meaning "be massive"
> $\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
> A-R:
> ār meaning "greens, vegetables"
> D-M:
> dVm meaning "wound" / "moan"
> dum meaning "destroy"
> dVm/dūm meaning "dwell', "last", "stay a long time in one place"
> dūm meaning "moisten, rain continuously"
> M-N:
> $\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"

Dataset 4.38.1. Cluster-word matches with Common Semitic from HT 29

## KI-TA:

kita meaning "cult functionary who 'cries' in ritual, usually in company with other performers"

MA-NE:
mān: (adverb and conjugation with several meanings and uses)
Dataset 4.38.2. Cluster-word matches with Hittite from HT 29

R-M-T:
rmT meaning "man, men, mankind, Egyptians" (collective noun)
R-M:
rm meaning "fish"
M-T:
mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"

K-T:
Kt meaning "other, another" / "pettiness"
R-D-I:
rdi meaning "give, put, place, appoint, send (letter), cause, permit, grant"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
D-I:
dAi meaning "subdue (lands)"
Dai meaning "extend (arm), oppose (oneself), pierce, transfix" / "reach out (of child's
mouth after milk), take (the breast to), devour (food), provide (with)" /
"ferry (one across), cross (sky)"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" / "pronounce, proclaim (name), mention (by name), be renowned (of office)" dmA meaning "cut off (heads)" / "bind together" / "stretch, be stretched out"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)"/ "so-and-so, someone"
Dataset 4.38.3. Cluster-word matches with Middle Egyptian from HT 29

### 4.39 Artefact HT 30

| S-R: |
| :---: |
| šār meaning "wind" |

šār meaning "wind"
Dataset 4.39.1. Cluster-word matches with Common Semitic from HT 30

SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.39.2. Cluster-word matches with Hittite from HT 30

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
S-R-R:
Srr meaning "little, meagre, younger, junior, short" / "small, lowly man"
R-R:
rr meaning "time"
Dataset 4.39.3. Cluster-word matches with Middle Egyptian from HT 30

### 4.40 Artefact HT 31

P-K:
pūḳ meaning "let out"
pVkV meaning "split, break, wound"
K-D:
kīd meaning "outside region"
D-M: "last", "stay a long time in one place"
$d V m$ meaning "wound" / "moan" / "dwell',

Dataset 4.40.1. Cluster-word matches with Common Semitic from HT 31

PU-KO:
puk meaning "be shunned, be repugnant, be hateful"
Dataset 4.40.2. Cluster-word matches with Hittite from HT 31

## T-S:

Ts meaning "sandbank, drought" / " model (face of sphinx), build (monuments)" /
"neck" / "vertebra, spine" / "speech, utterance, phrase, sentence, maxim" /
"join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)"/
"clot, become constricted" / "tie (knot), tie on (fillet), weave (cloth)" / "marshal (troops), levy (troops), order, arrange (rites), knot itself up" ts meaning "smash (heads), grind (corn), split (wood)"

D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)" dmA meaning "cut off (heads)" / "bind together" / "stretch, be stretched out"
Dataset 4.40.3. Cluster-word matches with Middle Egyptian from HT 31

### 4.41 Artefact HT 32

> S-R:
> šār meaning "wind"

Dataset 4.41.1. Cluster-word matches with Common Semitic from HT 32

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.41.2. Cluster-word matches with Hittite from HT 32

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.41.3. Cluster-word matches with Middle Egyptian from HT 32

### 4.42 Artefact HT 33

## šār meaning "wind"

Dataset 4.42.1. Cluster-word matches with Common Semitic from HT 33

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.42.2. Cluster-word matches with Hittite from HT 33

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.42.3. Cluster-word matches with Middle Egyptian from HT 33

### 4.43 Artefact HT 34

## S-R:

šār meaning "wind"
Dataset 4.43.1. Cluster-word matches with Common Semitic from HT 34

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.43.2. Cluster-word matches with Hittite from HT 34

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.43.3. Cluster-word matches with Middle Egyptian from HT 34

### 4.44 Artefact HT 35

T-T:
$t \underline{V} \underline{t} V^{0}$ meaning "cacare"
$t \mathrm{~V}^{\mathrm{c}}-\underline{t} \mathrm{~V}^{\mathrm{c}}$ meaning "trample"
K-T:
kVt meaning "weak"
kVt meaning "be massive"
$\mathrm{kVt} \mathrm{V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
kūt meaning "feed"
Dataset 4.44.1. Cluster-word matches with Common Semitic from HT 35

T-T:
titi meaning "trample on (foe)"
tit meaning "(written) sign" / "image, form, shape, figure, design"
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
K-T:
Kt meaning "other, another" / "pettiness"
Dataset 4.44.2. Cluster-word matches with Middle Egyptian from HT 35

### 4.45 Artefact HT 37

## R-S:

$\mathrm{rVš} \mathrm{~V}^{c}$ meaning "treat severely", "be evil, behave badly"
rVŝ meaning "sprinkle"
Dataset 4.45.1. Cluster-word matches with Common Semitic from HT 37

## A-NA: <br> anna meaning "mother"

Dataset 4.45.2. Cluster-word matches with Hittite from HT 37

> | K-K: |
| :---: |
| kk meaning "be dark (of child about to be born)" |
| R-S: |
| rs meaning "wake, be watchful, vigilant" |

Dataset 4.45.3. Cluster-word matches with Middle Egyptian from HT 37

### 4.46 Artefact HT 38

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.46.1. Cluster-word matches with Common Semitic from HT 38

## D-R-P:

drp meaning "offer to (god), feed (someone), present (dues)" / "make offering"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dataset 4.46.2. Cluster-word matches with Middle Egyptian from HT 38

### 4.47 Artefact HT 39

> | K-R: |
| :---: |
| kur meaning "ball" |
| kVrV meaning "call, shout" |
| kVr meaning "dry(ing)" |
| S-M: |
| šamā̄ meaning "sky" |
| šVmac meaning "hear" |
| M-T: |
| maṭ meaning "stick, branch" |
| mVt meaning "son" |

Dataset 4.47.1. Cluster-word matches with Common Semitic from HT 39

S-M-T:
Smt meaning "mother-in-law"/ "walking, gait, movements, actions, business" smt meaning "hear" / "hammock"

S-M:
smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" / "scalp, side" / "ramp?" / "partake (of), make ready (a boat)" /
"unite, join (a company), associate (with), arrive (in)" sm meaning "deed, event, affair, pastime' sAm meaning "burn up" (causative)
Sma meaning "Upper Egyptian barley" / "make music"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)"/ "vessel, duct, muscle" (anatomical) / "dead man, mortal man"
Dataset 4.47.2. Cluster-word matches with Middle Egyptian from HT 39

### 4.48 Artefact HT 40

> | K-D: |
| :---: |
| kīd meaning "outside region" |

## D-T:

dVt meaning "beat, push"
Dataset 4.48.1. Cluster-word matches with Common Semitic from HT 40

## N -D:

nD meaning "confer (office), appoint (someone)" / "save, protect, guard against (magic), make good (harm), protection, protector" / "grind" / "thread" /
"take counsel, ask advice, consult, enquire about, call upon, utter"
Dataset 4.48.2. Cluster-word matches with Middle Egyptian from HT 40

### 4.49 Artefact HT 41a

D-N:
dVn meaning "be bent" / "be strong" / "cut off"
Dataset 4.49.1. Cluster-word matches with Common Semitic from HT 41a
$\square$
Dataset 4.49.2. Cluster-word matches with Middle Egyptian from HT 41a

### 4.50 Artefact HT 42 [+] 59

> S-R:
> šār meaning "wind""

Dataset 4.50.1. Cluster-word matches with Common Semitic from HT 42 [+] 59

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
S-D:
Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice"
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
R-T:
rT meaning "now, but"
Dataset 4.50.2. Cluster-word matches with Middle Egyptian from HT 42 [+] 59

### 4.51 Artefact HT 43

> M-S:
> mVšV meaning "rob"

Dataset 4.51.1. Cluster-word matches with Common Semitic from HT 43

## MA-SI:

masi meaning "how many (much)?" (interrogative/relative adjective)
Dataset 4.51.2. Cluster-word matches with Hittite from HT 43
M-S:
ms meaning "child" / "calf" / "surely, indeed" / "bouquet"/
"bring, present, "ring away booty, extend (hand), take (aim)"
msi meaning "be born" / "bear, give birth, calve (of gazelle), lay (of bird)" /
"create (of god)", bring forth (of field), make, fashion"
S-D:
Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice",
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"

Dataset 51.3. Cluster-word matches with Middle Egyptian from HT 43

### 4.52 Artefact HT 46a

> M-R
> mur meaning "go away" / "dig"

Dataset 4.52.1. Cluster-word matches with Common Semitic from HT 46a

## M-R:

mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake"/ "libation trough" / "bind" / "milk jar"
Dataset 4.52.2. Cluster-word matches with Middle Egyptian from HT 46a

### 4.53 Artefact HT 47a

| K-P: $k V p a^{\circ}$ meaning "go away" |
| :---: |
| P-N: <br> pVnv meaning "side, direction" <br> pVn meaning "turn" <br> pan meaning "face" |
| K-D-R: <br> kidr meaning "earthenware" kVdar meaning "be dirty" |
| K-D: <br> kīd meaning "outside region" |
| D-R: <br> dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary" |
| M-N: <br> $\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of" |
| N-M: num meaning "lie, gossip" |

Dataset 4.53.1. Cluster-word matches with Common Semitic from HT 47a

KU-PA:
kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
MI-NU:
minu being "alone, solely"
Dataset 4.53.2. Cluster-word matches with Hittite from HT 47a

```
                                    P-N:
pn meaning "this, he of" pna meaning "turn upside down"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
```

M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)"/ "so-and-so, someone"
$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"
Dataset 4.53.3. Cluster-word matches with Middle Egyptian from HT 47a

### 4.54 Artefact HT 49a

R-D:
$r V d u^{3}$ meaning "be spoiled, be bad"
rac ${ }^{\mathrm{d}}$ meaning "storm, thunder"
T-N:
$t ̣ \bigvee n V$ meaning "weave", "tie, plait"
S-K:
šuk meaning "harrow (verb)" / "cut (ears)"
šūk meaning "push" / "march and stumble"
šVk meaning "drink", "give a drink"
D-N:
dun meaning "buzz"
dūn meaning "remain"/ "weak"
dVn meaning "be bent" / "be strong" / "cut off"
S-R:
šīr meaning "go" / "sing"
A-R:
ār meaning "greens, vegetables"
K-P:
$\mathrm{kVpa}{ }^{3}$ meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
T-S:
ṭū̂̂ meaning "fly", "jump up"
S-P:
sVpV meaning "falcon"
šup meaning "soar" / "tie", "plait", "sew"

## šūp meaning "smell, sniff (around)"/ "grind"

## Dataset 4.54.1. Cluster-word matches with Common Semitic from HT 49a

## A-RU:

aru meaning "high"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"

KU-PA:
kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.54.2. Cluster-word matches with Hittite from HT 49a

```
                            R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
T-N-T:
Tnt meaning "difference (between x and y )" tnT meaning "spur - winged plover"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" / "lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"
S-K:
ski meaning "destroy" / "perish" / "accusation" / "pass (time)"
sk meaning "wipe, wipe out, wipe away" / "fell (trees)"
D-N:
dni meaning "share out" / "revet (earthen banks)"/
"dam (water), construct (dam), hold back, restrain (someone)"
dn meaning "cut off (heads), kill (someone)"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
```


## T-S:

```
Ts meaning "sandbank, drought" / " model (face of sphinx), build (monuments)" /
"neck" / "vertebra, spine" / "speech, utterance, phrase, sentence, maxim"/
"join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)"/
"clot, become constricted" / "tie (knot), tie on (fillet), weave (cloth)" /
"marshal (troops), levy (troops), order, arrange (rites), knot itself up" ts meaning "smash (heads), grind (corn), split (wood)"
S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/
```

> "times, twice" / "deed, act" / "matter, affair, case"/ "occasion, chance, venture, success, condition"

Dataset 4.54.3. Cluster-word matches with Middle Egyptian from HT 49a

### 4.55 Artefact HT 51a

> T-N:
> $\underline{t} \mathrm{VnV}$ meaning "weave", "tie, plait"

Dataset 4.55.1. Cluster-word matches with Common Semitic from HT 51a

> T-N:
> tn meaning "this"
> Tn meaning "you, your"/ "where? whence?"
> Tni meaning "basin" / "old man" / "Thinis" /
> "lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

Dataset 4.55.2. Cluster-word matches with Middle Egyptian from HT 51a

### 4.56 Artefact HT 51b

> K-M:
kVmV meaning "bind"
kVm meaning "sheep" / "burn" ḳūm meaning "stand up, get up"

M-T:
mVt meaning "son"
Dataset 4.56.1. Cluster-word matches with Common Semitic from HT 51b

K-M-T:
Kmt meaning "the Black Land, Egypt" / "Egyptians" (collective noun) / "completion, final account" / "a jar"

K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man"
mTA meaning "flout, vex"
Dataset 4.56.2. Cluster-word matches with Middle Egyptian from HT 51b

### 4.57 Artefact HT 52a

| S-M: |
| :---: |
| šamāo meaning "sky" |
| šVma ${ }^{\text {c }}$ meaning "hear" |

> D-K-K:
> dik(k.k) meaning "be small", "be thin, fine"
> D-K:
> dīk meaning "rooster", dik(k.k. meaning "be small", "be thin, fine"

Dataset 4.57.1. Cluster-word matches with Common Semitic from HT 52a

## S-M:

smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" /
"scalp, side" / "ramp?" / "partake (of), make ready (a boat)" /
"unite, join (a company), associate (with), arrive (in)" sm meaning "deed, event, affair, pastime' sAm meaning "burn up" (causative) Sma meaning "Upper Egyptian barley" / "make music"

K-K:
kk meaning "be dark (of child about to be born)"
Dataset 4.57.2. Cluster-word matches with Middle Egyptian from HT 52a

### 4.58 Artefact HT 53a

> S-N:
> šan meaning "year"
> šVnV meaning "trot"

Dataset 4.58.1. Cluster-word matches with Common Semitic from HT 53a

## S-N:

sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" / "tree" / "smell (perfume), breathe (air), kiss"
Dataset 4.58.2. Cluster-word matches with Middle Egyptian from HT 53a

### 4.59 Artefact HT 54a

K-M:
kVmV meaning "bind"
kVm meaning "sheep" / "burn"
$\mathrm{M}-\mathrm{N}$ :
$\mathrm{mVnV}{ }^{\mathrm{c}}$ meaning "hold, take hold of"
K-M:
kVmV meaning "bind"
kVm meaning "sheep" / "burn"
kū̄m meaning "stand up, get up"
Dataset 4.59.1. Cluster-word matches with Common Semitic from HT 54a

## KI-MI-RA:

kimra meaning "outdoors, countryside, wilderness; ranch, field; military campaign"
Dataset 4.59.2. Cluster-word matches with Hittite from HT 54a

## K-M:

km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"
M-N-Q:
mnq meaning "come to an end"
M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" /
"establish, press (with fingers)" / "so-and-so, someone"

## M-R:

mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"
Dataset 4.59.3. Cluster-word matches with Middle Egyptian from HT 54a

### 4.60 Artefact HT 55a

M-R:
mar meaning "drop" / "(be) bitter" / "healthy, strong"
S-R:
šīr meaning "go" / "sing"
Dataset 4.60.1. Cluster-word matches with Common Semitic from HT 55a

M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake"/ "libation trough" / "bind" / "milk jar"

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.60.2. Cluster-word matches with Middle Egyptian from HT 55a

### 4.61 Artefact HT 57a

D-Q-R:
dqr meaning "press (against), exclude (from), a process in spinning"
D-Q:
dq meaning "flour, powder"
Dataset 4.61.1. Cluster-word matches with Middle Egyptian from HT 57a

### 4.62 Artefact HT 58

T-R:
tir meaning "stick with a hook" / "run fast", "hurry, hasten" tīr meaning "part of the building", "wall, fence"
$\mathrm{tVrV}^{\mathrm{o}}$ meaning "lift"
tVr meaning "push gently"
R-D:
rVdu ${ }{ }^{\text {meaning "be spoiled, be bad" }}$ ra ${ }^{\mathrm{c}}$ d meaning "storm, thunder"
Dataset 4.62.1. Cluster-word matches with Common Semitic from HT 58

T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
Dataset 4.62.2. Cluster-word matches with Middle Egyptian from HT 58

### 4.63 Artefact HT 61

> M-T:
> mVt meaning "son"

Dataset 4.63.1. Cluster-word matches with Common Semitic from HT 61

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" / "vessel, duct, muscle" (anatomical) / "dead man, mortal man"
Dataset 4.63.2. Cluster-word matches with Middle Egyptian from HT 61

### 4.64 Artefact HT 62 [+] 73

## S-R: <br> šār meaning "wind"

Dataset 4.64.1. Cluster-word matches with Common Semitic from HT 62 [+] 73

SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.64.2. Cluster-word matches with Hittite from HT 62 [+] 73
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
K-K:
kk meaning "be dark (of child about to be born)"

## I-T:

iTi meaning "take, take possession of, conduct, remove, arrest, conquer, spend, pass, move, rob" it meaning "barley, corn"
Dataset 4.64.3. Cluster-word matches with Middle Egyptian from HT 62 [+] 73

### 4.65 Artefact HT 73 [+] 62

| S-R: |
| :---: |
| šār meaning "wind" |

Dataset 4.65.1. Cluster-word matches with Common Semitic from HT 73 [+] 62

SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
PA-I:
pai meaning "give, pay, offer, furnish, consign, render"
pai meaning "go; go ahead; head for, resort to"
Dataset 4.65.2. Cluster-word matches with Hittite from HT 73 [+] 62

S-R-Q:
srq meaning "inhale, permit to breathe (of throats)"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
R-Q:
rq meaning "incline, turn aside (from), defy"
Dataset 4.65.3. Cluster-word matches with Middle Egyptian from HT 73 [+] 62

### 4.66 Artefact HT 63

> | K-T: |
| :---: |
| kVt meaning "weak", |
| $\mathrm{kV} \mathrm{\underline{t}}$ meaning "be massive", "be spent" |
| $\mathrm{kVṭV} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be |
| $\mathrm{S}-\mathrm{P}:$ |
| sVpV meaning "falcon", |
| šup meaning "soar" / "tie", "plait", "sew" |
| šūp meaning "smell, sniff (around)"/ "grind" |

Dataset 4.66.1. Cluster-word matches with Common Semitic from HT 63

K-T:
Kt meaning "another, other" / "pettiness"
S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/
"times, twice" / "deed, act" / "matter, affair, case" / "occasion, chance, venture, success, condition"
Dataset 4.66.2. Cluster-word matches with Middle Egyptian from HT 63

### 4.67 Artefact HT 64

Z-N:
$\mathrm{zVna}{ }^{\text {o }}$ meaning "keep from urinating" zVn meaning "rain (verb)"

R-M:
rVm meaning "roar" rūm meaning "be high"
Dataset 4.67.1. Cluster-word matches with Common Semitic from HT 64

> | $\mathrm{R}-\mathrm{M}:$ |
| :---: |
| rm meaning "fish" |

Dataset 4.67.2. Cluster-word matches with Middle Egyptian from HT 64

### 4.68 Artefact HT 66

$$
\begin{gathered}
\text { T-M: } \\
\text { tVmV meaning "swear" } \\
\underline{\text { tVm meaning "close (ears)" }}
\end{gathered}
$$

Dataset 4.68.1. Cluster-word matches with Common Semitic from HT 66

## T-M:

tm meaning "perish, cease" / "close (the mouth), to hush" /
"be complete, complete, entire, everything, the universe"
Dataset 4.68.2. Cluster-word matches with Middle Egyptian from HT 66

### 4.69 Artefact HT 69

> | M-D: |
| :---: |
| madi meaning "bronze vessel" |

Dataset 4.69.1. Cluster-word matches with Common Semitic from HT 69

$$
\begin{gathered}
\text { M-D: } \\
\text { mD meaning "ten" / "deep" }
\end{gathered}
$$

Dataset 4.69.2. Cluster-word matches with Middle Egyptian from HT 69

### 4.70 Artefact HT 75

K-R:
ḳār meaning "single mountain, hill"
kVrV meaning "call, shout"
kVr meaning "drying"

Dataset 4.70.1. Cluster-word matches with Common Semitic from HT 75

## KA-RU:

karū meaning "early; formerly, earlier; already; hitherto, up to now"
Dataset 4.70.2. Cluster-word matches with Hittite from HT 75

### 4.71 Artefact HT 79 [+] 83

| D-P: dVpa meaning "be hot" dVp meaning "push" |
| :---: |
| T-P: tup meaning ""spit", "spit blood", " $V$ meaning "be full" / "jump" / "take grasp", "clap", "give", "stretch hand" |
| P-R: pVr meaning "break" / "forbid, refuse" / "fly, flee" |

Dataset 4.71.1. Cluster-word matches with Common Semitic from HT 79 [+] 83

## D-P:

dp meaning "taste (verb), experience" / "Dep (Delta City)"
T-P-R:
tpr meaning "breathe"
T-P:
tp meaning "head, headman, chief, tip (of toe), example (mathematics), the best of"/
"principal (financial)" / "upon" / "person, people"
P-R:
pr meaning "go up, ascend, be subtracted (mathematical)"
Dataset 4.71.2. Cluster-word matches with Middle Egyptian from HT 79 [+] 83

### 4.72 Artefact HT 81

A-S:
${ }^{c} a s ̂$ meaning "bite"
R-S:
$r V s ̌ V^{c}$ meaning "treat severely", "be evil, behave badly"
rVŝ meaning "sprinkle"
S-M:
šVma ${ }^{c}$ meaning "hear"
Dataset 4.72.1. Cluster-word matches with Common Semitic from HT 81

A-SI:
as meaning "remain, stay, be left"
Dataset 4.72.2. Cluster-word matches with Hittite from HT 81

```
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan" / "act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/ "a type of cake, bread"
R-S:
rs meaning "wake, be watchful, vigilant"
S-M:
smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" /
"scalp, side" / "ramp?" / "partake (of), make ready (a boat)" /
"unite, join (a company), associate (with), arrive (in)" sm meaning "deed, event, affair, pastime'
Sma meaning "Upper Egyptian barley" / "make music"
```

Dataset 4.72.3. Cluster-word matches with Middle Egyptian from HT 81

### 4.73 Artefact HT 85a

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"

P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
K-Z:
kūz meaning "unite, collect"
kuz meaning "be dry"
Z-N:
zVn meaning "rain (verb)"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.73.1. Cluster-word matches with Common Semitic from HT 85a

A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"/
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

D-R-D:
DrD meaning "leaf"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"

> R-D:
> rd meaning "foot" / "grow" /"shoot (of tree)"

D-S:
ds meaning "flint" / "jar" / "knife"
dsi meaning "vilify"
Dataset 4.73.2. Cluster-word matches with Middle Egyptian from HT 85a

### 4.74 Artefact HT 85b

K-R:
kVrV meaning "call, shout"
kVr meaning "dry(ing)"
$\mathrm{kVra}^{\mathrm{c}}$ meaning "strike (with a stick)"
K-R:
kVrV meaning "call, shout"
kVr meaning "dry(ing)"
T-T:
$t \mathrm{VtV} \mathrm{V}$ meaning "cacare"
ṭ $\mathrm{V}^{\mathrm{c}}-\mathrm{t} \mathrm{V}^{\mathrm{c}}$ meaning "trample"
W-D:
wad meaning "love, want"
D-N:
dun meaning "buzz"
dūn meaning "remain" / "weak" dVn meaning "be bent" / "be strong" / "cut off"
$\mathrm{N}-\mathrm{M}$ :
nim meaning "lie, gossip"
M-D:
madi meaning "bronze vessel"
Dataset 4.74.1. Cluster-word matches with Common Semitic from HT 85b

## KI-RA:

## Dataset 4.74.2. Cluster-word matches with Hittite from HT 85b

K-K:
kk meaning "be dark (of child about to be born)"
T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
D-S:
ds meaning "flint" / "jar" / "knife"
W-D-N:
wdn meaning "offer (to)" / "record (royal titulary), instal'"" / "be heavy, weigh, become difficult" / "weigh (on someone, of affairs)" / "offerer"

W-D:
wD meaning "act as pilot, pilot" / "inscription" / "jug" / "stela" /
"(written) decree, despatch" / "allot, decree (something to), entrust (a matter)"
D-N:
dni meaning "share out" / "revet (earthen banks)" /
"dam (water), construct (dam), hold back, restrain (someone)" dn meaning "cut off (heads), kill (someone)"

N-M:
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"

M-D:
mD meaning "ten" / "deep"
Dataset 4.74.3. Cluster-word matches with Middle Egyptian from HT 85b

### 4.75 Artefact HT 86a

## K-R:

kār meaning "single mountain, hill"
kVrV meaning "call, shout" $\mathrm{k} V r$ meaning "drying"

N-S:
niš meaning "man"
nVs meaning "dictate (a letter)"
S-R:
šār meaning "wind"

```
D-D:
        did meaning "honorable title"
        dīd meaning "kind of clothes"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
D-M:
dam meaning "blood"
dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place"
M-N:
\(\mathrm{mVnV}^{\mathrm{c}}\) meaning "hold, take hold of"
Dataset 4.75.1. Cluster-word matches with Common Semitic from HT 86a
```


## A-KA:

ak meaning "die; be killed; be legally executed"
KA-RU:
karū meaning "early; formerly, earlier; already; hitherto, up to now"

## SA-RU:

saru meaning "pillage, plunder, sack; spoils, loot" sāru meaning "raging ailment, hectic, inflammation"

MI-NU:
minu meaning "alone, solely"
Dataset 4.75.2. Cluster-word matches with Hittite from HT 86a

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
D-D:
Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect"/ "stable, enduring" / "the djed column"

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
R-W:
rw meaning "lion"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"

## M-N-T:

mnt meaning "swallow (bird)" / "malady, what is harmful, suffering"/ "content (of receptacle) / "the like"

M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)"/ "so-and-so, someone"
Dataset 4.75.3. Cluster-word matches with Middle Egyptian from HT 86a

### 4.76 Artefact HT 87

T-N:
ṭVnV meaning "weave", "tie, plait"
M-K:
mak $V{ }^{\circ}$ meaning "vessel for offering"
K-R:
kari ${ }^{\circ}$ meaning "kind of bird"
kār meaning "single mountain, hill"
kVrV meaning "call, shout" kVr meaning "drying"

P-T:
pVt meaning "cloth"
T-K-S:
tVkVs meaning "trample"
K-S:
kVî meaning "pierce"
R-M:
rVm meaning "roar"
D-K:
dīk meaning "rooster"
K-S:
kīs meaning "end, finish"
ḳî̀ meaning "break, split"
kVî meaning "pierce"
S-P:
sVpV meaning "falcon"
šup meaning "soar" / "tie", "plait", "sew"
šūp meaning "smell, sniff (around)" / "grind"
K-R-K:

> | kurk meaning "crane" |
| :---: |
| K-R: |
| kur meaning "ball" |
| kVrV meaning "call, shout" |
| kVr meaning "drying" |
| R-K: |
| rVk meaning "pour out", "sprinkle" |
| A-R: |
| ār meaning "greens, vegetables" |

## Dataset 4.76.1. Cluster-word matches with Common Semitic from HT 87

KE-SI:
kes meaning "comb, card"
KI-SE:
kis meaning "comb, card"
kis meaning "turn out to be, come about, happen, occur"
KU-RU-KU:
kurk meaning "hold back, keep in, retain, preserve"
A-RA:
ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur"
ar meaning "come (to), arrive (at), be at hand"
Dataset 4.76.2. Cluster-word matches with Hittite from HT 87

T-N:
tn meaning "this"
Tn meaning "you, you" / "where?, whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

M-K:
mk meaning "behold" / "protector" / "boat"
T-K-S:
tks meaning "pierce"
K-S:
ks meaning "pose"
ksi meaning "bend down, bow down, be prostrate"
R-M:
rm meaning "fish"
K-S:
ks meaning "pose"
Q-S:
qs meaning "bone"
S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)" /
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
R-K:
rk meaning "time (of king, of ancients)" / "but, now"
A-T:
At meaning "moment, instant, time"
Dataset 4.76.3. Cluster-word matches with Middle Egyptian from HT 87

### 4.77 Artefact HT 88

K-N:
kin meaning "cereal"
kīn meaning "forge"
$\mathrm{kVna}{ }^{\circ}$ meaning "kill"
K-P-P:
kupp meaning "water spring" / "building"
kupp meaning "box", "basket"
K-P:
$\mathrm{kVpa}{ }^{\circ}$ meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
S-M:
šamāo meaning "sky"
$s \mathrm{sVma}^{\mathrm{c}}$ meaning "hear"
M-R:
mar meaning "drop" / "(be) bitter" / "healthy, strong"
mar ${ }^{\circ}$ meaning "son"
D-T:
dVt meaning "beat, push"

T-R:
$t V r V{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
Dataset 4.77.1. Cluster-word matches with Common Semitic from HT 88

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.77.2. Cluster-word matches with Hittite from HT 88

## A-D:

aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

K-K:
kk meaning "be dark (of child about to be born)"
P-N:
pn meaning "this, he of"
S-M-R:
smr meaning "friend (of king)" / "cause pain"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" /
"libation trough" / "bind" / "milk jar"
D-T:
Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" /
"serf" / "body, image, bodily form (of god, statues), self"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.77.3. Cluster-word matches with Middle Egyptian from HT 88

### 4.78 Artefact HT 89

A-S-R:
caṣr meaning "time, age"
A-S:
${ }^{c} a s ̂$ meaning "bite"
S-R:
šār meaning "wind"

T-R:
$t V r V{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
Dataset 4.78.1. Cluster-word matches with Common Semitic from HT 89

| A-SA-RA: |
| :---: |
| asara meaning "white, bright" |
| A-SA: |
| as meaning "remain, stay, be left" |
| SA-RA: |
| sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition) |
| MA-I: |
| mai meaning "grow, increase, thrive, mature, ripen, reach term, be born" |

Dataset 4.78.2. Cluster-word matches with Hittite from HT 89

## A-S-R:

ASr meaning "roast, roast meat, a roast"
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan"/
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/
"a type of cake, bread"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
M-I:
mAi meaning "lion"
mi meaning "come! (imperative)"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.78.3. Cluster-word matches with Middle Egyptian from HT 89

### 4.79 Artefact HT 90

K-R:
kur meaning "ball"
kVrV meaning "call, shout"
kVr meaning "drying"
N-S:
$n V s a^{c}$ meaning "tear out"

```
nVŝa \({ }^{\text {c }}\) meaning "introduce a medicine through nose", "sniff, snuffle"
    nVs meaning "dictate (a letter)"
S-R:
šār meaning "wind"
S-R:
šīr meaning "go" / "sing"
R-M:
rVm meaning "roar" rūm meaning "be high"
M-R:
mari \({ }^{\circ}\) meaning "fat", "fat cattle" mar meaning "drop" / "(be) bitter" / "healthy, strong" mar" meaning "son"
```

Dataset 4.79.1. Cluster-word matches with Common Semitic from HT 90

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)

## MA-RI:

māri meaning "manual tool or weapon"
Dataset 4.79.2. Cluster-word matches with Hittite from HT 90

```
N-S-R:
nsr meaning "anoint (injury)" / "anger?" / "flame"
S-R: sr meaning "nobleman, magistrate" / "foretell, make known"
R-M:
rm meaning "fish"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake"/ "libation trough" / "bind" / "milk jar"
Dataset 4.79.3. Cluster-word matches with Middle Egyptian from HT 90
```


### 4.80 Artefact HT 91

T-R:
$\mathrm{tVrV}{ }^{0}$ meaning "lift"
tVr meaning "push gently"
Dataset 4.80.1. Cluster-word matches with Common Semitic from HT 91

## T-R:

tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.80.2. Cluster-word matches with Middle Egyptian from HT 91

### 4.81 Artefact HT 92

A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"/
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"
Dataset 4.81.1. Cluster-word matches with Middle Egyptian from HT 92

### 4.82 Artefact HT 93a

> P-N: pVnv meaning "side, direction" pVn meaning "turn" pan meaning "face" D-R: dir meaning "drip", "flow abundantly"" dVr meaning "drive away, make go" / "run freely", "run tirelessly" K-D: kīd meaning "outside region" D-N: dīn meaning "long rain" dVn meaning "be bent" / "be strong" / "cut off" A-S: caŝ meaning "bite" S-R: šār meaning "wind" DVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary" P-N: pVnv meaning "side, direction", pVn meaning "turn" pan meaning "face" P-S: pas meaning "axe" pas meaning "palm"

> pVs meaning "destroy, break"
> pVî meaning "spread", "smear", "scatter" / "distribute"

Dataset 4.82.1. Cluster-word matches with Common Semitic from HT 93a

A-SE:
as meaning "remain, stay, be left"
SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
PA-SE: pas meaning "swallow, devour, ingest, consume"
Dataset 4.82.2. Cluster-word matches with Hittite from HT 93a
$\mathrm{N}-\mathrm{N}:$
nn meaning "not"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"
D-N:
dni meaning "share out" / "dam (water), construct (dam), hold back, restrain (someone), revet (earthen banks)" dn meaning "cut off (heads), kill (someone)"

A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/ "a type of cake, bread"

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
D-R-D:
DrD meaning "leaf"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"

$$
\begin{gathered}
\text { R-D: } \\
\text { rd meaning "foot" / "grow" /"shoot (of tree)" }
\end{gathered}
$$

## $\mathrm{N}-\mathrm{N}$ : <br> nn meaning "not"

Dataset 4.82.3. Cluster-word matches with Middle Egyptian from HT 93a

### 4.83 Artefact HT 94a

K-P:
$\mathrm{kVpa}{ }^{3}$ meaning "go away"
S-R:
šār meaning "wind"
Dataset 4.83.1. Cluster-word matches with Common Semitic from HT 94a

> SA-RA:
> sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)

Dataset 4.83.2. Cluster-word matches with Hittite from HT 94a

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.83.3. Cluster-word matches with Middle Egyptian from HT 94a

### 4.84 Artefact HT 94b

| T-M: <br> tVmV meaning "swear" ṭVm meaning "close (ears)" |
| :---: |
| $\begin{gathered} \text { P-T: } \\ \text { pVt meaning "cloth" } \end{gathered}$ |
| T-N: <br> $t ̣ \mathrm{VnV}$ meaning "weave", "tie, plait" |
| $\begin{gathered} \text { K-R: } \\ \text { kVrV meaning "call, shout" } \\ \text { kVr meaning "drying" } \end{gathered}$ |
| S-R: <br> šār meaning "wind" |
| dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place" |
| $\begin{gathered} \text { M-T: } \\ \text { mVt meaning "son" } \end{gathered}$ |

Dataset 4.84.1. Cluster-word matches with Common Semitic from HT 94b

## PA-TA:

pat(a) meaning "foot, leg; footing, base"
KI-RU:
kir meaning "heart; center, core"
SA-RU:
saru meaning "pillage, plunder, sack; spoils, loot"
sāru meaning "raging ailment, hectic, inflammation"
Dataset 4.84.2. Cluster-word matches with Hittite from HT 94b

T-M:
tm meaning "perish, cease" / "close (the mouth), to hush"/
"be complete, complete, entire, everything, the universe"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

## D-D:

Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect" /
"stable, enduring" / "the djed column"
ddi meaning "haematite"
K-K:
kk meaning "be dark (of child about to be born)"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
D-M-T:
dmt meaning "knife"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man"
Dataset 4.84.3. Cluster-word matches with Middle Egyptian from HT 94b

### 4.85 Artefact HT 95a

| D-D: |
| :---: |
| dad meaning "nursing mother" |

D-M:
dVm meaning "wound" / "moan"
dum meaning "destroy"
dVm/dūm meaning "dwell', "last", "stay a long time in one place" dūm meaning "moisten, rain continuously"

M-T:
maṭ meaning "stick, branch"
mVt meaning "son"

D-M:
dam meaning "blood"
dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place"
$\mathrm{M}-\mathrm{N}$ :
mVnV c meaning "hold, take hold of"
S-R:
šār meaning "wind"
$\mathrm{N}-\mathrm{S}$ :
niš meaning "man"
$n$ Vs meaning "dictate (a letter)"
D-D:
did meaning "elder", "honorable title" dīd meaning "kind of clothes"

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"

R-U:
$r V^{c}$ meaning "break"
Dataset 4.85.1. Cluster-word matches with Common Semitic from HT 95a

MI-NU:
minu meaning "alone, solely"

SA-RU:
saru meaning "pillage, plunder, sack; spoils, loot"
sāru meaning "raging ailment, hectic, inflammation"
Dataset 4.85.2. Cluster-word matches with Hittite from HT 95a

## D-D:

Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect"/ "stable, enduring" / "the djed column"
ddi meaning "haematite"
D-M-T:

D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)" dmA meaning "cut off (heads)" / "bind together" / "stretch, be stretched out"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" / "vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"

D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"
$\mathrm{M}-\mathrm{N}-\mathrm{T}$ :
mnt meaning "swallow (bird)" / "malady, what is harmful, suffering" /
"content (of receptacle) /"the like"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
D-D:
Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect" / "stable, enduring" / "the djed column"

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/ "lay down (flooring), overlay (floor)"
Dataset 4.85.3. Cluster-word matches with Middle Egyptian from HT 95a

### 4.86 Artefact HT 95b

S-R:
šār meaning "wind"
D-M:
dam meaning "blood"
dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place"
M-N:
$m V n V{ }^{c}$ meaning "hold, take hold of"

## $\mathrm{N}-\mathrm{S}$ :

niš meaning "man"
nVs meaning "dictate (a letter)"
D-D:
did meaning "elder", "honorable title" dīd meaning "kind of clothes"

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
R-U:
$\mathrm{rV}^{\mathrm{c}}$ meaning "break"
Dataset 4.86.1. Cluster-word matches with Common Semitic from HT 95b

SA-RU:
saru meaning "pillage, plunder, sack; spoils, loot"
sāru meaning "raging ailment, hectic, inflammation"
MI-NU:
minu meaning "alone, solely"
Dataset 4.86.2. Cluster-word matches with Hittite from HT 95b
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"

## M-N-T:

mnt meaning "swallow (bird)" / "malady, what is harmful, suffering"/
"content (of receptacle) / "the like"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" /
"establish, press (with fingers)" / "so-and-so, someone"

## D-D:

Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect" / "stable, enduring" / "the djed column"

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.86.3. Cluster-word matches with Middle Egyptian from HT 95b

### 4.87 Artefact HT 96a

> T-T:
> $t \mathrm{tt}^{\mathrm{t}}{ }^{0}$ meaning "cacare"
> ṭ $\mathrm{V}^{\mathrm{c}}$-ṭ $\mathrm{V}^{\mathrm{c}}$ meaning "trample"
> P-R:
> parāc meaning "axe" par meaning "rat"
> pVr meaning "break" / "forbid, refuse" / "fly, flee"
> S-M:
> šim meaning "name"
> M-T:
> mVt meaning "son"
> S-R:
> šār meaning "wind"
> P-T:
> pVt meaning "cloth"
> T-R:
> $\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
> tVr meaning "push gently"
> K-M:
> ḳūm meaning "stand up, get up"
> $\mathrm{kVmV}{ }^{\circ}$ meaning "bind"
> ḳm meaning "sweep" / "burn"
> M-R:
> mar meaning "drop" / "(be) bitter"/ "healthy, strong" mar" meaning "son"

Dataset 4.87.1. Cluster-word matches with Common Semitic from HT 96a

A-PA:
apa meaning "that (one); he, she, it; thy, thine, your(s)"
PA-RA:
parā meaning "blown air, breath, breathing, blast" parā meaning "further(more), in addition" (adverb);
"forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)

## MI-TA:

mit(t)a meaning "red"; "red wool"
Dataset 4.87.2. Cluster-word matches with Hittite from HT 96a

## I-T-T:

iTT meaning "fly up"

## I-T:

iTi meaning "take, take possession of, conduct, remove, arrest, conquer, spend, pass, move, rob" it meaning "barley, corn"

## T-T:

titi meaning "trample on (foe)"
tit meaning "(written) sign" / "image, form, shape, figure, design" Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"

T-K-N:
tkn meaning "be near, approach, draw near, attack (someone), border (on)"
A-P-R:
apr meaning "provide, equip (with), man (a vessel), acquire, incur (injury)"/ "on Asiatic people"

S-M-T:
Smt meaning "mother-in-law" / "walking, gait, movements, actions, business" smt meaning "hear" / "hammock"

M-T:
mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"

P-T-R:
ptr meaning "see, behold" / "who?, what?"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"
M-R:
mR meaning "sorely" / "pain, ailment"/ "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"
Dataset 4.87.3. Cluster-word matches with Middle Egyptian from HT 96a

### 4.88 Artefact HT 96b

> P-R:
> parāc meaning "axe"
> par meaning "rat"
> pVr meaning "break" / "forbid, refuse" / "fly, flee"

Dataset 4.88.1. Cluster-word matches with Common Semitic from HT 96b

A-PA:
apa meaning "that (one); he, she, it; thy, thine, your(s)"
PA-RA:
parā meaning "blown air, breath, breathing, blast"
parā meaning "further(more), in addition" (adverb); "forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)
Dataset 4.88.2. Cluster-word matches with Hittite from HT 96b

## A-P-R:

apr meaning "provide, equip (with), man (a vessel), acquire, incur (injury)" / "on Asiatic people"

R-R:
rr meaning "time"
Dataset 4.88.3. Cluster-word matches with Middle Egyptian from HT 96b

### 4.89 Artefact HT 97a

K-R:
kār meaning "single mountain, hill"
$\mathrm{k} V r V$ meaning "call, shout"
$\mathrm{k} V r$ meaning "drying"
M-D:
madi meaning "bronze vessel"
T-T:
$t \underline{t} \underline{t} V{ }^{\circ}$ meaning "cacare"
$t \mathrm{~V}^{\mathrm{c}}-\mathrm{t} \mathrm{V}^{\mathrm{c}}$ meaning "trample"
Dataset 4.89.1. Cluster-word matches with Common Semitic from HT 97a

KA-RU:
karū meaning "early; formerly, earlier; already; hitherto, up to now"

## PA-I:

pai meaning "give, pay, offer, furnish, consign, render"
pai meaning "go; go ahead; head for, resort to"
Dataset 4.89.2. Cluster-word matches with Hittite from HT 97a

K-N-T:
knt meaning "dislike (of someone)"
I-T:
it meaning "barley, corn"
M-D:
mD meaning "ten" / "deep"
T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
Dataset 4.89.3. Cluster-word matches with Middle Egyptian from HT 97a

### 4.90 Artefact HT 97b

## S-R:

šār meaning "wind"
Dataset 4.90.1. Cluster-word matches with Common Semitic from HT 97b

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.90.2. Cluster-word matches with Hittite from HT 97b
$\square$
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.90.3. Cluster-word matches with Middle Egyptian from HT 97b

### 4.91 Artefact HT 98a

T-N:
$\operatorname{ṭV}^{\mathrm{V} V}$ meaning "weave", "tie, plait"
D-R:
dir meaning "drip", "flow abundantly"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
D-N:
dīn meaning "long rain"
dVn meaning "be bent" / "be strong" / "cut off"
R-K:
rVk meaning "pour out", "sprinkle"

| K-R: |
| :---: |
| kario meaning "kind of bird" |
| kār meaning "single mountain, hill" |
| kVrV meaning "call, shout" |
| kVVr meaning "drying" |

Dataset 4.91.1. Cluster-word matches with Common Semitic from HT 98a

T-N-T:
Tnt meaning "difference (between x and y )"
tnT meaning "spur - winged plover"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

D-R-D:
DrD meaning "leaf"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" / "subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
D-N:
dn meaning "cut off (heads), kill (someone)"
R-K:
rk meaning "but, now" / "time (of king, of ancients)"
Dataset 4.91.2. Cluster-word matches with Middle Egyptian from HT 98a

### 4.92 Artefact HT 98b

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.92.1. Cluster-word matches with Common Semitic from HT 98b

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.92.2. Cluster-word matches with Middle Egyptian from HT 98b

### 4.93 Artefact HT 99a

> S-R:
> šār meaning "wind""

Dataset 4.93.1. Cluster-word matches with Common Semitic from HT 99a

SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.93.2. Cluster-word matches with Hittite from HT 99a

A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.93.3. Cluster-word matches with Middle Egyptian from HT 99a

### 4.94 Artefact HT 99b

> | R-M: |
| :---: |
| rVm meaning "roar" |
| rūm meaning "be high" |
| M-T: |
| maṭ meaning "stick, branch" |
| mVt meaning "son" |

Dataset 4.94.1. Cluster-word matches with Common Semitic from HT 99b

$$
\begin{gathered}
\text { D-S: } \\
\text { ds meaning "flint" / "jar" / "knife" } \\
\text { dsi meaning ""vilify" } \\
\text { R-M-T: } \\
\text { rmT meaning "man, men, mankind, Egyptians" (collective noun) } \\
\text { R-M: } \\
\text { rm meaning "fish" } \\
\text { M-T: } \\
\text { mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" / } \\
\text { "vessel, duct, muscle" (anatomical) / "dead man, mortal man" } \\
\text { mTA meaning "flout, vex" }
\end{gathered}
$$

Dataset 4.94.2. Cluster-word matches with Middle Egyptian from HT 99b

### 4.95 Artefact HT 100

> S-R:
> šār meaning "wind"

Dataset 4.95.1. Cluster-word matches with Common Semitic from HT 100

> SA-RA:
> sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)

Dataset 4.95.2. Cluster-word matches with Hittite from HT 100

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.95.3. Cluster-word matches with Middle Egyptian from HT 100

### 4.96 Artefact HT 101

> S-R:
> šār meaning "wind"
> K-P:
> kVpa meaning "go away"

Dataset 4.96.1. Cluster-word matches with Common Semitic from HT 101

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
KU-PA:
kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.96.2. Cluster-word matches with Hittite from HT 101

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.96.3. Cluster-word matches with Middle Egyptian from HT 101

### 4.97 Artefact HT 102

```
    K-P:
    kVpa meaning "go away"
    P-S:
    pVsa}\mp@subsup{}{}{\circ}\mathrm{ meaning "tear into pieces"
    pa`š meaning "axe"
    pas meaning "palm"
            pVs meaning "destroy, break"
        pVŝ meaning "spread", "smear", "scatter"/ "distribute"
                            S-R:
                            šār meaning "wind"
```


## P-N:

pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
D-R:
dir meaning "drip", "flow abundantly"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
Dataset 4.97.1. Cluster-word matches with Common Semitic from HT 102

PA-SA:
pas meaning "swallow, devour, ingest, consume"
SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
MA-ZU:
maz meaning "meet by force, stand up, confront, brave, challenge; match, measure up to"
Dataset 4.97.2. Cluster-word matches with Hittite from HT 102

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"
Dataset 4.97.3. Cluster-word matches with Middle Egyptian from HT 102

### 4.98 Artefact HT 103

> | D-K: |
| :---: |
| dak(k) meaning "bench", "staircase" |
| K-S: |
| kus meaning "kind of clothes" |
| kuš meaning "pound" |
| kuș meaning "cut" |
| kVis meaning "pierce" |
| S-N: |
| šVnV" meaning "trot" |
| D-K: |
| dak(k) meaning "bench", "staircase" |

# K-N: <br> $\mathrm{kVna}{ }^{\circ}$ meaning "kill" <br> K-R: <br> kVrV meaning "call, shout" <br> kVr meaning "drying" <br> $\mathrm{kVra}{ }^{\mathrm{c}}$ meaning "strike (with a stick)" 

Dataset 4.98.1. Cluster-word matches with Common Semitic from HT 103

KU-NA:
kunna meaning "right (hand/side); right, favourable, successful"
Dataset 4.98.2. Cluster-word matches with Hittite from HT 103

> P-D:
> pd meaning "knee"
> pD meaning "stretch (cord in foundation ceremony)"/
> "measure (for pigment)" / "stretch out (man on ground)"/
> "extend (oneself in effort), draw (bow), diffuse (perfume)"
> K-S:
> ks meaning "pose"
> S-N:
sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" / "tree" / "smell (perfume), breathe (air), kiss"
Dataset 4.98.3. Cluster-word matches with Middle Egyptian from HT 103

### 4.99 Artefact HT 104

T-P:
ṭlp meaning "be full" / "jump " / "take, grasp", "clap", "give", "stretch hand"
T-R:
$\mathrm{tVrV}{ }$ meaning "lift"
tVr meaning "push gently"
D-K:
dak(k) meaning "bench", "staircase"
K-S:
kus meaning "kind of clothes"
kuš meaning "pound"
kuṣ meaning "cut"
kVî meaning "pierce"
S-N:
šVnV" meaning "trot"
D-T:

## dVt meaning "beat, push"

Dataset 4.99.1. Cluster-word matches with Common Semitic from HT 104

## T-P:

tp meaning "head, headman, chief, tip (of toe), example (mathematics), the best of"/
"principal (financial)" / "upon" / "person, people"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

K-S:
ks meaning "pose"
S-N-T:
snT meaning "measure out (land), found (a house etc), form (limbs), refix (eyes of the dead)"
snt meaning "senet (a board game)" / "base (of statue)"/
"festival of the $6^{\text {th }}$ day of lunar month"
SnT meaning "sheriff" / "revil (God), oppose (someone), punish (crime)"
S-N:
sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" /
"tree" / "smell (perfume), breathe (air), kiss"
I-D-T:
idt meaning "womb, vulva, uterus" / "cow" / "censing, incense - burning" / "wrath?"
I-D:
id meaning "boy" / "assault"
D-T:
Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" /
"serf" / "body, image, bodily form (of god, statues), self"
P-D-S-T:
pdst meaning "pellet"
P-D-S:
pds meaning "box, casket" / "stamp flat, flatten"
P-D:
pd meaning "knee"
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" / "stretch out (man on ground)" /
"extend (oneself in effort), draw (bow), diffuse (perfume)"
D-S:
ds meaning "flint" / "jar" / "knife"

## S-T:

St meaning "tax-payers" / "assessment (of taxes)"
st meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official"
Dataset 4.99.2. Cluster-word matches with Middle Egyptian from HT 104

### 4.100 Artefact HT 105

K-P:
$\mathrm{kVpa}{ }^{\circ}$ meaning "go away"
S-R:
šār meaning "wind"
Dataset 4.100.1. Cluster-word matches with Common Semitic from HT 105

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.100.2. Cluster-word matches with Hittite from HT 105

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.100.3. Cluster-word matches with Middle Egyptian from HT 105

### 4.101 Artefact HT 106

$\mathrm{M}-\mathrm{N}$ :
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"
Dataset 4.101.1. Cluster-word matches with Common Semitic from HT 106

MI-NU:
minu meaning "alone, solely"
Dataset 4.101.2. Cluster-word matches with Hittite from HT 106

M-N-T:
mnt meaning "swallow (bird)" / "malady, what is harmful, suffering" /
"content (of receptacle) / "the like"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"
Dataset 4.101.3. Cluster-word matches with Middle Egyptian from HT 106

### 4.102 Artefact HT 108

ḳVV meaning "call, shout""
ḳV meaning "drying"
T-N:
ṭnV meaning "weave", "tie, plait"
D-N:
dīn meaning "long rain"
dVn meaning "be bent" /"be strong" / "cut off"
D-S:
dūš meaning "trample"
S-N:
šVnV meaning "trot"

Dataset 4.102.1. Cluster-word matches with Common Semitic from HT 108

KI-RE:
kir meaning "heart; center, core"
Dataset 4.102.2. Cluster-word matches with Hittite from HT 108

> R-T-N:
> rTn meaning "now, but",
> r Tn meaning "whither?"
> T-N:
> tn meaning "this"
> Tn meaning "you, your" / "where? whence?"
> Tni meaning "basin" / "old man" /"Thinis" /
> "lift up, promote, distinguish (from), be distinguished (of actions)"
> tni meaning "old age" / "grow old" / "signs of old age (external)"
> D-N:
> dn meaning "cut off (heads), kill (someone)"
> D-S:
> ds meaning "flint" / "jar" / "knife"
> S-N:
> sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" / "tree" / "smell (perfume), breathe (air), kiss"
> Dataset 4.102.3. Cluster-word matches with Middle Egyptian from HT 108

### 4.103 Artefact HT 109

A-R:
ār meaning "greens, vegetables"
Dataset 4.103.1. Cluster-word matches with Common Semitic from HT 109

## A-RA:

ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"
Dataset 4.103.2. Cluster-word matches with Hittite from HT 109

### 4.104 Artefact HT 110a

K-M:
kūm meaning "stand up, get up"
kVmV ${ }^{\text {m }}$ meaning "bind"
kVm meaning "sweep" / "burn"
K-P:
kVpa ${ }^{\circ}$ meaning "go away"

Dataset 4.104.1. Cluster-word matches with Common Semitic from HT 110a

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.104.2. Cluster-word matches with Hittite from HT 110a

Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice" sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture"/ "break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"
Dataset 4.104.3. Cluster-word matches with Middle Egyptian from HT 110a

### 4.105 Artefact HT 111a

> | Q-S: |
| :---: |
| qs meaning "bone" |

Dataset 4.105.1. Cluster-word matches with Middle Egyptian from HT 111a

### 4.106 Artefact HT 111b

## S-D:

Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice"
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture"/
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
Dataset 4.106.1. Cluster-word matches with Middle Egyptian from HT 111b

### 4.107 Artefact HT 112a

> | T-P: |
| :---: |
| tup meaning "spit", "spit blood" |

țVp meaning "be full" / "jump " / "take, grasp", "clap", "give", "stretch hand"
Dataset 4.107.1. Cluster-word matches with Common Semitic from HT 112a

## T-P:

tp meaning "head, headman, chief, tip (of toe), example (mathematics), the best of"/
"principal (financial)" / "upon" / "person, people"
Dataset 4.107.2. Cluster-word matches with Middle Egyptian from HT 112a

### 4.108 Artefact HT 113

> W-S:
> $\mathrm{wVsa}^{\mathrm{c}}$ meaning "be spatious, big"

Dataset 4.108.1. Cluster-word matches with Common Semitic from HT 113

## R-R:

rr meaning "time"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
W-S:
wS meaning "be destroyed, fall out, desolate (a place)" / "urinate" wSA meaning "fatten" / "utter (plaudits), recite (praises)"
wSa meaning "eat a morsel, chew"
ws meaning "crack, chink, small window"
Dataset 4.108.2. Cluster-word matches with Middle Egyptian from HT 113

### 4.109 Artefact HT 114a

> | K-R: |
| :---: |
| kVrV meaning "call, shout" |
| kVr meaning "drying" |
| S-R: |
| šār meaning "wind" |

Dataset 4.109.1. Cluster-word matches with Common Semitic from HT 114a

## T-S:

Ts meaning "sandbank, drought" / " model (face of sphinx), build (monuments)" / "neck" / "vertebra, spine" / "speech, utterance, phrase, sentence, maxim" /
"join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)"/ "clot, become constricted" / "tie (knot), tie on (fillet), weave (cloth)" / "marshal (troops), levy (troops), order, arrange (rites), knot itself up" ts meaning "smash (heads), grind (corn), split (wood)"

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.109.2. Cluster-word matches with Middle Egyptian from HT 114a

### 4.110 Artefact HT 115a

> N-R:
> nūr meaning "light"
> T-M:
> tVmV meaning "swear"
> ṭVm meaning "close (ears)"
> M-N-W:
> mVnVw meaning "count", "test, try"
> $\mathrm{M}-\mathrm{N}$ :
> $\mathrm{mVnV}{ }^{\mathrm{c}}$ meaning "hold, take hold of"
> U-R:
> ${ }^{\circ}$ ur meaning "set fire"
> M-N:
> $\mathrm{mVnV}{ }^{\mathrm{c}}$ meaning "hold, take hold of"
> S-K:
> šVk meaning "drink", "give a drink"
> K-T:
> ḳūt meaning "feed"
> kVt meaning "weak"
> kVt meaning "be massive"
> $\mathrm{kVṭV}^{c}$ meaning "finish, be finished", "be spent"
> P-R:
> parāc meaning "axe"
> $\mathrm{pa}^{\text {r }} \mathrm{r}$ meaning "rat"
> pVr meaning "break" / "forbid, refuse" / "fly, flee"
> A-S:
> ${ }^{c} a s ̂$ meaning "bite"
> P-R:
> pVr meaning "break" / "forbid, refuse" / "fly, flee"
> R-S:
> rVŝ meaning "sprinkle"
> $r V s ̌ V^{c}$ meaning "treat severely", "be evil, behave badly"

## šVma ${ }^{\text {c }}$ meaning "hear"

Dataset 4.110.1. Cluster-word matches with Common Semitic from HT 115a

PA-RA:
parā meaning "blown air, breath, breathing, blast" parā meaning "further(more), in addition" (adverb);
"forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)
A-SE:
as meaning "remain, stay, be left"
Dataset 4.110.2. Cluster-word matches with Hittite from HT 115a
$\mathrm{N}-\mathrm{R}$ :
nr meaning "charge (after enemy)" / "time, return of the year"
T-M:
tm meaning "perish, cease" / "close (the mouth), to hush" / "be complete, complete, entire, everything, the universe"

TmA meaning "cadaster" tmA meaning "mat"

M-N-W:
mnw meaning "Min (god, divinity)" / "trees, plantation" / "pain" / "pigeons" / "monuments" / "type of stone, quartz?" / "thread"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"
$\mathrm{N}-\mathrm{W}$ :
nw meaning "see, look" / "this, these" / "hunter" / "weakness, be weak" / "time, for a while"
nwi meaning "care for, take care of, collect, assemble"
Q-N:
qn meaning "brave man" / "fat" / "offence, attack" / "mat"
N-M:
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"

S-K:

# sk meaning "wipe, wipe out, wipe away" / "fell (trees)" <br> A-S: <br> aS meaning "summon" / "cedar" / "cedar - oil"/ "groan"/ <br> "act as pilot, pilot" <br> As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/ <br> "a type of cake, bread" <br> R-S: <br> rs meaning "wake, be watchful, vigilant" 

Dataset 4.110.3. Cluster-word matches with Middle Egyptian from HT 115a

### 4.111 Artefact HT 115b

```
                                    P-R:
                            parāc}\mp@subsup{}{}{c}\mathrm{ meaning "axe"
    pa`r meaning "rat"
pVr meaning "break" / "forbid, refuse"/ "fly, flee"
T-N:
tin meaning "fig tree"
\(t ̣ V n V\) meaning "weave", "tie, plait"
ṭin meaning "buzz, tinkle", "call"
ṭīn meaning "clay, earth, dirt"
D-P:
\(\mathrm{dVpa}{ }^{\circ}\) meaning "be hot"
dVp meaning "push"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
K-R-M:
\(\mathrm{k} V\) rum meaning "cut with teeth"
K-R:
kur meaning "ball"
kVrV meaning "call, shout"
\(\mathrm{k} V r\) meaning "drying"
R-M:
rVm meaning "roar"
rūm meaning "be high"
K-T:
ḳūt meaning "feed"
kVt meaning "weak"
kVt meaning "be massive"
```


## $\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"

Dataset 4.111.1. Cluster-word matches with Common Semitic from HT 115b

PA-RA:
parā meaning "blown air, breath, breathing, blast"
parā meaning "further(more), in addition" (adverb);
"forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)
A-I:
a(y)i meaning "pain" (interjection)
Dataset 4.111.2. Cluster-word matches with Hittite from HT 115b

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin"/ "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

N-W:
nw meaning "see, look" / "this, these" / "hunter" / "weakness, be weak" / "time, for a while" nwi meaning "care for, take care of, collect, assemble"

D-P:
dp meaning "taste (verb), experience" / "Dep (Delta City)"
R-M:
rm meaning "fish"
Dataset 4.111.3. Cluster-word matches with Middle Egyptian from HT 115b

### 4.112 Artefact HT 116a

> | T-R: |
| :---: |
| tVrV meaning "lift" |
| tVr meaning "push gently" |
| $\mathrm{K}-\mathrm{P}:$ |
| kVpa " meaning "go away", |
| P-R: |
| pVr meaning "break" / "forbid, refuse" / "fly, flee" |
| $\mathrm{S}-\mathrm{K}:$ |
| šVk meaning "drink", "give a drink" |
| $\mathrm{N}-\mathrm{M}:$ |
| num meaning "lie, gossip" |

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.112.2. Cluster-word matches with Hittite from HT 116a

T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

S-K:
sk meaning "wipe, wipe out, wipe away" / "fell (trees)"
Q-N:
qn meaning "brave man" / "fat" / "offence, attack" / "mat"
N-M:
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
Dataset 4.112.3. Cluster-word matches with Middle Egyptian from HT 116a

### 4.113 Artefact HT 117a



M-R:
mar meaning "drop" / "(be) bitter"/ "healthy, strong" mar ${ }^{\text {² }}$ meaning "son", "master", "man, husband"

K-P:
$\mathrm{kVpa}{ }^{\mathrm{o}}$ meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
U-D:
cud meaning "count"
D-M:
dim meaning "tower", "borough"
dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place"
T-R:
$\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"

S-T:
śVt meaning "tie, weave"
K-D:
kud meaning "work (hard), be tired"
kud meaning "cut", "tear"
K-D-R:
kV dar meaning "be dirty"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"

## K-S:

$\mathrm{kVs} \mathrm{a}{ }^{\text {m }}$ meaning "peel"
kVî meaning "pierce"
S-I:
$\widehat{\text { ŝip }}$ meaning "wish"
D-M:
dam meaning "blood"

```
dVm meaning "wound"/ "moan"/ "dwell', "last", "stay a long time in one place"
                            M-N:
        mVnV}\mp@subsup{}{}{\textrm{c}}\mathrm{ meaning "hold, take hold of"
    D-N:
    dVn meaning "be bent" / "be strong" / "cut off"
                            N-K:
        nVk}\mathrm{ meaning "pour out"
    K-T:
    kūt meaning "feed"
    kVt meaning "weak"
            kVt\underline{t}}\mathrm{ meaning "be massive"
    kVtt\mp@subsup{V}{}{c}}\mathrm{ meaning "finish, be finished", "be spent"
                            K-D-R:
            kidr meaning "earthenware"
                    K-D:
                    kīd meaning "outside region"
                            D-R:
    dVr meaning "drive away, make go" / "run freely", "run tirelessly"
    dār meaning "dwelling", "house", "granary"
Dataset 4.113.1. Cluster-word matches with Common Semitic from HT 117a
```

KA-RI:
kari meaning "be gracious towards, accommodate, humour"
KU-PA:
kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
SA-TA:
satta meaning "bowl, bucket; pelvis"
SA-I:
sai meaning "rage, be(come) enranged, flare up"
MI-NU:
minu meaning "alone, solely"
NE-KU:
neku meaning "night falls, evening comes"
KI-RI:
kir meaning "heart; center, core"

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.113.2. Cluster-word matches with Hittite from HT 117a

M-K:
mk meaning "behold" / "protector" / "boat"
M-N-S:
mnS meaning "cartouche"
M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" /
"establish, press (with fingers)" / "so-and-so, someone"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" / "vessel, duct, muscle" (anatomical) / "dead man, mortal man"

R-M:
rm meaning "fish"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" /
"libation trough" / "bind" / "milk jar"
P-N:
pn meaning "this, he of"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" / "pronounce, proclaim (name), mention (by name), be renowned (of office)"

M-R-T:
mrt meaning "weavers, servants, underlings" / "throat, larynx" / "Meret (musician goddess)" / "street" / "a type of boat" / "pains"

## M-R:

mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" /
"libation trough" / "bind" / "milk jar"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

R-R:
rr meaning "time"

## N-D:

nD meaning "confer (office on), appoint (someone)" / "grind" / "thread" /
"take counsel, ask advice, consult, enquire about, call upon, utter" / "save, protect" / "protection" / "flour"
nDA meaning "parch (with thirst)" / "measure (for loaves and dates)"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" / "subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"

## S-T:

St meaning "tax-payers" / "assessment (of taxes)" st meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official"

K-K:
kk meaning "be dark (of child about to be born)"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
K-S-I:
ksi meaning "bend down, bow down, be prostrate"
K-S:
ks meaning "pose"
D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"

D-N:
dn meaning "cut off (heads), kill (someone)"
N-K: nk meaning "copulate"

N-K-T:
nkt meaning "some, a little, something, piece (of wood), profit, advantage"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/ "subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.113.3. Cluster-word matches with Middle Egyptian from HT 117a

### 4.114 Artefact HT 117b

T-N:
$t ̣ V n V$ meaning "weave", "tie, plait"
K-R:
kur meaning "ball"
kVrV meaning "call, shout"
kVr meaning "drying"
D-K:
dīk meaning "rooster"
dik(k) meaning "be small", "be thin, fine"
K-S:
kīs meaning "end, finish"
kiis meaning "break, split"
kVî meaning "pierce"
Dataset 4.114.1. Cluster-word matches with Common Semitic from HT 117b

## KI-SE:

kis meaning "comb, card"
kis meaning "turn out to be, come about, happen, occur"
Dataset 4.114.2. Cluster-word matches with Hittite from HT 117b

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

K-S:
ks meaning "pose"
Dataset 4.114.3. Cluster-word matches with Middle Egyptian from HT 117b

### 4.115 Artefact HT 118

| M-D: |
| :---: |
| madi meaning "bronze vessel" |
| A-R-S: |
| ${ }^{\text {arŝ meaning "earth" }}$ |

A-R:
ār meaning "greens, vegetables"
R-S:
rVŝ meaning "sprinkle"
$\mathrm{rVš} \mathrm{~V}^{\mathrm{c}}$ meaning "treat severely", "be evil, behave badly"
R-M:
rVm meaning "roar"
rūm meaning "be high"
Dataset 4.115.1. Cluster-word matches with Common Semitic from HT 118

M-D:
mD meaning "ten" / "deep"
R-S:
rs meaning "wake, be watchful, vigilant"
R-R:
rr meaning "time"
R-M:
rm meaning "fish"
Dataset 4.115.2. Cluster-word matches with Middle Egyptian from HT 118

### 4.116 Artefact HT 119

R-M:
rVm meaning "roar" rim meaning "be rotten (of bones)", "be worn, be frayed"

M-S:
$\mathrm{mVš} V{ }^{\text {p }}$ meaning "rob"
K-P:
$\mathrm{kVpa}{ }^{\text { }}$ meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
$\mathrm{N}-\mathrm{T}$ :
nVta ${ }^{3}$ meaning "go out"
Dataset 4.116.1. Cluster-word matches with Common Semitic from HT 119

KU-PA:
kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.116.2. Cluster-word matches with Hittite from HT 119

## R-M:

rm meaning "fish" rmi meaning "weep, beweep"

## M-S:

ms meaning "bring, present, bring away booty, extend (hand), take (aim)"/
"calf" / "child" / "surely, indeed" / "bouquet"
msi meaning "be born" / "bear, give birth, calve (of gazelle), lay (of bird)" /
"create (of god), bring forth (of field), make, fashion"
Dataset 116.3. Cluster-word matches with Middle Egyptian from HT 119

### 4.117 Artefact HT 120



KI-RE:
kir meaning "heart; center, core"
PA-I:
pai meaning "give, pay, offer, furnish, consign, render"
pai meaning "go; go ahead; head for, resort to"
Dataset 4.117.2. Cluster-word matches with Hittite from HT 120

| D-Q-R: |
| :---: |
| dqr meaning "press (against), exclude (from), a process in spinning" |
| D-Q: |
| dq meaning "flour, powder" |
| R-T: |
| rT meaning "now, but" |
| R-T-N: |
| rTn meaning "now, but" |
| r Tn meaning "whither?" |
| T-N: |

> tn meaning "this"

Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

I-T:
it meaning "barley, corn"
Dataset 4.117.3. Cluster-word matches with Middle Egyptian from HT 120

### 4.118 Artefact HT 121

## K-R:

kVrV meaning "call, shout" $\mathrm{k} V r$ meaning "drying"

S-R:
šār meaning "wind"
Dataset 4.118.1. Cluster-word matches with Common Semitic from HT 121

KI-RI:
kir meaning "heart; center, core"
SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.118.2. Cluster-word matches with Hittite from HT 121

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.118.3. Cluster-word matches with Middle Egyptian from HT 121

### 4.119 Artefact HT 122a

U-D:
cud meaning "count"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
dār meaning "dwelling", "house", "granary"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
dir meaning "drip","flow abundantly"
K-P:
kVpa` meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
P-T:
pVt meaning "cloth"
T-N:
$t ̣ \bigvee n V$ meaning "weave", "tie, plait"
K-P:
$\mathrm{kVpa}{ }^{3}$ meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
dār meaning "dwelling", "house", "granary"
K-D:
kud meaning "work (hard), be tired"
kud meaning "cut", "tear"
Dataset 4.119.1. Cluster-word matches with Common Semitic from HT 122a

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
PA-TA:
patta meaning "multiple pourable stone objects"
Dataset 4.119.2. Cluster-word matches with Hittite from HT 122a

> R-R:
> rr meaning "time"
> D-S:
> ds meaning "flint" / "jar" / "knife"
> M-D-R:
> mDr meaning "shut out (storms), wall in""
> M-D:
> mD meaning "ten" / "deep"
> D-R:
> dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
> "subdue (enemies), expel, drive out (people, illness)" /
> "lay down (flooring), overlay (floor)"

## S-D-R:

sDr meaning "spend the night, sleep, lie down, go to rest, be inert, inactive, do in the night" / "department (of the Residence)"

S-D:
Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice" sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
sDA meaning "adviser?" / "travel, depart (in sense of die)"
P-D:
pd meaning "knee"
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" / "stretch out (man on ground)" /
"extend (oneself in effort), draw (bow), diffuse (perfume)"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

D-R-D:
DrD meaning "leaf"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"

> R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
Dataset 4.119.3. Cluster-word matches with Middle Egyptian from HT 122a

### 4.120 Artefact HT 122b

K-T:
kVt meaning "weak"
kVt meaning "be massive"
$\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
A-R:
ār meaning "greens, vegetables"
U-D:
cud meaning "count"

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"

P-T:
pVt meaning "cloth"
K-R:
kVrV meaning "call, shout"
$\mathrm{k} V r$ meaning "drying"
Dataset 4.120.1. Cluster-word matches with Common Semitic from HT 122b

## KI-TA:

kita meaning "cult functionary who 'cries' in ritual, usually in company with other performers"

A-RA:
ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"
Dataset 4.120.2. Cluster-word matches with Hittite from HT 122b

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
T-K-R:
tkr meaning "opponent"
Dataset 4.120.3. Cluster-word matches with Middle Egyptian from HT 122b

### 4.121 Artefact HT 123a

> | K-T: |
| :---: |
| kVt meaning "weak" |
| kVt meaning "be massive", "be spent" |
| $\mathrm{kVṭ̂} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", |
| T-I: |
| $\mathrm{ti}^{\mathrm{c}}$ " meaning "flow", "pour (of rain)" |
| $\mathrm{S}-\mathrm{R}:$ |
| šār meaning "wind" |
| D-T: |
| dVt meaning "beat, push" |

Dataset 4.121.1. Cluster-word matches with Common Semitic from HT 123a

KI-TA:
kita meaning "cult functionary who 'cries' in ritual, usually in company with other performers"

SA-RU:
saru meaning "pillage, plunder, sack; spoils, loot"
sāru meaning "raging ailment, hectic, inflammation"
Dataset 4.121.2. Cluster-word matches with Hittite from HT 123a

```
                    S-R:
        sr meaning "nobleman, magistrate" / "foretell, make known"
            D-T:
    Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" /
    "serf" / "body, image, bodily form (of god, statues), self"
Dataset 4.121.3. Cluster-word matches with Middle Egyptian from HT 123a
```


### 4.122 Artefact HT 123b

> D-T:
> dVt meaning "beat, push"
> P-S:
> pVsa º meaning "tear into pieces"
> pVs meaning "destroy, break"
> pVî meaning "spread", "smear", "scatter" / "distribute"

T-P:
tup meaning "spit", "spit blood"
ṭp meaning "be full" / "jump " / "take, grasp", "clap", "give", "stretch hand"
D-D:
did meaning "elder", "honorable title"
dīd meaning "kind of clothes"
K-N:
$\mathrm{k} V \mathrm{Va}^{\circ}$ meaning "kill"
D-M:
dVm meaning "wound" / "moan"
$\mathrm{dVm} / \mathrm{dūm}$ meaning "dwell', "last", "stay a long time in one place"
dum meaning "destroy"
I-N:
${ }^{\circ}$ in meaning "spread (of water)"
Dataset 4.122.1. Cluster-word matches with Common Semitic from HT 123b

## MA-I:

mai meaning "grow, increase, thrive, mature, ripen, reach term, be born"
Dataset 4.122.2. Cluster-word matches with Hittite from HT 123b

D-T:
Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" / "serf" / "body, image, bodily form (of god, statues), self"

T-P:
tp meaning "head, headman, chief, tip (of toe), example (mathematics), the best of" /
"principal (financial)" / "upon" / "person, people"
P-D:
pd meaning "knee"
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" / "stretch out (man on ground)" /
"extend (oneself in effort), draw (bow), diffuse (perfume)"
D-D:
Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect"/ "stable, enduring" / "the djed column"

DdA meaning "fat"
S-D:
Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice" sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
P-D:
pd meaning "knee"
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" / "stretch out (man on ground)" /
"extend (oneself in effort), draw (bow), diffuse (perfume)"
D-M-I:
dmi meaning "be joined (to), accrue (to), cleave (to), suit (someone), befall (someone)" / "touch, reach (a place)" / "vicinity" / "town, quarter (of town), abode, vicinity, quay"

D-M:
dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)" dmA meaning "cut off (heads)" / "bind together" / "stretch, be stretched out"

M-I:
mi meaning "come! (imperative)"
mAi meaning "lion"
Dataset 4.122.3. Cluster-word matches with Middle Egyptian from HT 123b

### 4.123 Artefact HT 125a

> S-R:
> šār meaning "wind""

Dataset 4.123.1. Cluster-word matches with Common Semitic from HT 125a

```
    SA-RA:
    sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
```

Dataset 4.123.2. Cluster-word matches with Hittite from HT 125a

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.123.3. Cluster-word matches with Middle Egyptian from HT 125a

### 4.124 Artefact HT 126a

D-N:
dVn meaning "be bent" / "be strong" / "cut off"
N-S:
nVs meaning "dictate (a letter)"
Dataset 4.124.1. Cluster-word matches with Common Semitic from HT 126a
D-N:
dn meaning "cut off (heads), kill (someone)"
D-N-S:
dns meaning "heaviness" / "heavy, irksome, burdensome (of years),
overburdened (of stomach), weighty"
S-D:
Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice"
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"

Dataset 4.124.2. Cluster-word matches with Middle Egyptian from HT 126a

### 4.125 Artefact HT 127a

$$
\begin{gathered}
\text { D-N: } \\
\text { dun meaning "buzz" } \\
\text { dūn meaning "remain" / "weak" } \\
\text { dVn meaning "be bent" / "be strong" / "cut off" }
\end{gathered}
$$

Dataset 4.125.1. Cluster-word matches with Common Semitic from HT 127a
$\square$

## $\mathrm{N}-\mathrm{M}$ :

nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"
Dataset 4.125.2. Cluster-word matches with Middle Egyptian from HT 127a

### 4.126 Artefact HT 128a

> P-R:
> parāc meaning "axe"
> $\mathrm{pa}^{9} \mathrm{r}$ meaning "rat"
> pVr meaning "break"/ "forbid, refuse"/ "fly, flee"
> T-R:
> tur meaning "run fast", "hurry, hasten"
> tūr meaning "turn"/ "flow"
> $t V r V{ }^{3}$ meaning "lift"
> tVr meaning "push gently"
> M-R:
> mar meaning "drop" / "(be) bitter" / "healthy, strong"
> mar' meaning "son", "master", "man, husband"
> M-T:
> mVt meaning "son"
> M-R:
> mar meaning "drop" / "(be) bitter" / "healthy, strong"
> mar ${ }^{\circ}$ meaning "son", "master", "man, husband"

Dataset 4.126.1. Cluster-word matches with Common Semitic from HT 128a

## PA-RA:

parā meaning "blown air, breath, breathing, blast"
parā meaning "further(more), in addition" (adverb);
"forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)
MI-TA:
$\operatorname{mit}(\mathrm{t})$ a meaning "red"; "red wool"
MA-RI:
māri meaning "manual tool or weapon"
Dataset 4.126.2. Cluster-word matches with Hittite from HT 128a

T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

W-T:
wt meaning "place of embalming" / "embalmer, bandager" / "embalm" /

```
                    "bandage, bind" / "mummy - wrapping" / "wrappings"
                    T-M:
        tm meaning "perish, cease" / "close (the mouth), to hush"/
        "be complete, complete, entire, everything, the universe"
            TmA meaning "cadaster"
                tmA meaning "mat"
                    M-R:
    mR meaning "sorely" / "pain, ailment"/ "sick, ill, diseased, painful"/
    "sick man"/ "pyramid" / "partisan, supporter"/"canal, artificial lake"/
        "libation trough" / "bind" / "milk jar"
    M-T:
    mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)"/
    "vessel, duct, muscle" (anatomical) / "dead man, mortal man"
        mTA meaning "flout, vex"
```

Dataset 4.126.3. Cluster-word matches with Middle Egyptian from HT 128a

### 4.127 Artefact HT 129

$\mathrm{K}-\mathrm{R}:$
kVVV meaning "call, shout"
kVr meaning "drying"

Dataset 4.127.1. Cluster-word matches with Common Semitic from HT 129

| KI-RE: |
| :---: |
| kir meaning "heart; center, core" |

Dataset 4.127.2. Cluster-word matches with Hittite from HT 129

### 4.128 Artefact HT 130

> | S-R: |
| :---: |
| šār meaning "wind" |

Dataset 4.128.1. Cluster-word matches with Common Semitic from HT 130

## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.128.2. Cluster-word matches with Hittite from HT 130

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.128.3. Cluster-word matches with Middle Egyptian from HT 130

### 4.129 Artefact HT 131b

```
    P-T:
pVt meaning "cloth"
```


## K-R:

kur meaning "ball"

Dataset 4.129.1. Cluster-word matches with Common Semitic from HT 131b

## T-K-R:

tkr meaning "opponent"
Dataset 4.129.2. Cluster-word matches with Middle Egyptian from HT 131b

### 4.130 Artefact HT 132

A-S:
${ }^{c} a s ̂$ meaning "bite"

Dataset 4.130.1. Cluster-word matches with Common Semitic from HT 132

A-SE:
as meaning "remain, stay, be left"
Dataset 4.130.2. Cluster-word matches with Hittite from HT 132

```
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/
"a type of cake, bread"
Q-R-T:
qrt meaning "depression, hollow place"
```

Dataset 4.130.3. Cluster-word matches with Middle Egyptian from HT 132

### 4.131 Artefact HT 133

A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"/
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"
Dataset 4.131.1. Cluster-word matches with Middle Egyptian from HT 133

### 4.132 Artefact HT 135a

M-N:
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"
M-T:
mVt meaning "son"
Dataset 4.132.1. Cluster-word matches with Common Semitic from HT 135a

## N-M:

nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man"
mTA meaning "flout, vex"
M-K:
mk meaning "behold" / "protector" / "boat"
Q-N:
qn meaning "brave man" / "fat" / "offence, attack" / "mat"
Dataset 4.132.2. Cluster-word matches with Middle Egyptian from HT 135a

### 4.133 Artefact HT 135b

> T-N:
> $\underline{t ̣ V n V ~ m e a n i n g ~ " w e a v e ", ~ " t i e, ~ p l a i t " ~}$

Dataset 4.133.1. Cluster-word matches with Common Semitic from HT 135b

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"
Dataset 4.133.2. Cluster-word matches with Middle Egyptian from HT 135b

### 4.134 Artefact HT 139

> M-K:
> maḳ $V^{`}$ meaning "vessel for offerings"
> K-R:
> kār meaning "single mountain, hill"
> kVrV meaning "call, shout"
> kVr meaning "drying"
> kVrac meaning "strike (with a stick)"

Dataset 4.134.1. Cluster-word matches with Common Semitic from HT 139

## M-K:

mk meaning "behold" / "protector" / "boat"
Dataset 4.134.2. Cluster-word matches with Middle Egyptian from HT 139

### 4.135 Artefact HT 140

$\mathrm{S}-\mathrm{N}:$
$\mathrm{s} \mathrm{snV}^{\circ}$ meaning "trot"
$\mathrm{K}-\mathrm{P}:$
$\mathrm{kVpa}^{\circ}$ meaning "go away"

Dataset 4.135.1. Cluster-word matches with Common Semitic from HT 140

S-N:
sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" /
"tree" / "smell (perfume), breathe (air), kiss"
Dataset 4.135.2. Cluster-word matches with Middle Egyptian from HT 140

### 4.136 Artefact HT 141

A-R:
ār meaning "greens, vegetables"
Dataset 4.136.1. Cluster-word matches with Common Semitic from HT 141

| A-R: |
| :---: |
| Ar meaning "drive away (from)" |
| R-D: |
| rd meaning "foot" /"grow" /"shoot (of tree)" |
| rdi meaning "give, put, place, appoint, cause, permit, grant" |

Dataset 4.136.2. Cluster-word matches with Middle Egyptian from HT 141

### 4.137 Artefact HT 146

## R-K:

rik meaning "be thin, be weak"
rVḳ meaning "pour out", "sprinkle"
K-T:
kVt meaning "weak"
kVt. meaning "be massive"
$\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
Dataset 4.137.1. Cluster-word matches with Common Semitic from HT 146

## R-K:

rk meaning "time (of king, of ancients)" / "but, now"
Dataset 4.137.2. Cluster-word matches with Middle Egyptian from HT 146

### 4.138 Artefact HT 154a

T-M:<br>tVmV meaning "swear"<br>ṭl Vm meaning "close (ears)"

Dataset 4.138.1. Cluster-word matches with Common Semitic from HT 154a

## T-M:

tm meaning "perish, cease" / "close (the mouth), to hush"/
"be complete, complete, entire, everything, the universe"
Dataset 4.138.2. Cluster-word matches with Middle Egyptian from HT 154a

### 4.139 Artefact KE 1

K-S:
$\mathrm{ka}^{\circ} \mathrm{s}$ meaning "vessel for beer", "bowl"
kVî meaning "pierce"
kVŝa ${ }^{\circ}$ meaning "peel"
Dataset 4.139.1. Cluster-word matches with Common Semitic from KE 1

KA-SA:
kasa meaning "look here, lo, behold"
Dataset 4.139.2. Cluster-word matches with Hittite from KE 1

| K-S: |
| :---: |
| ks meaning "pose" |

Dataset 4.139.3. Cluster-word matches with Middle Egyptian from KE 1

### 4.140 Artefact KN 1a

K-T:
kVt meaning "weak"
kVt meaning "be massive"
$\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
kūt meaning "feed"
Dataset 4.140.1. Cluster-word matches with Common Semitic from KN 1a

### 4.141 Artefact KN 1b

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
dūr meaning "turn"
Dataset 4.141.1. Cluster-word matches with Common Semitic from KN 1b

D-R-T:
DRT meaning "hand, trunk (of elephant), handle (of jar)" / "hand" / "harm"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/ "subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.141.2. Cluster-word matches with Middle Egyptian from KN 1b

### 4.142 Artefact KN 22b

D-P:
$\mathrm{dVpa}{ }^{\circ}$ meaning "be hot" dVp meaning "push"
Dataset 4.142.1. Cluster-word matches with Common Semitic from KN 22b

> P-D:
> pd meaning "knee"
> pD meaning "stretch (cord in foundation ceremony)"/
> "measure (for pigment)" / "stretch out (man on ground)"/
> "extend (oneself in effort), draw (bow), diffuse (perfume)"
> D-P:
> dp meaning "taste (verb), experience" / "Dep (Delta City)""

Dataset 4.142.2. Cluster-word matches with Middle Egyptian from KN 22b

### 4.143 Artefact KN 22c

> M-S:
> mVšV" meaning "rob"

Dataset 4.143.1. Cluster-word matches with Common Semitic from KN 22c

## M-S:

ms meaning "bring, present, bring away booty, extend (hand), take (aim)" / "calf" / "child" / "surely, indeed" / "bouquet"
Dataset 4.143.2. Cluster-word matches with Middle Egyptian from KN 22c

### 4.144 Artefact KN 32a

K-T:
kVt meaning "weak"
kVt meaning "be massive" $\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
Dataset 4.144.1. Cluster-word matches with Common Semitic from KN 32a

A-PA:
apa meaning "that (one); he, she, it; thy, thine, your(s)"

## A-KA:

ak meaning "die; be killed; be legally executed"
Dataset 4.144.2. Cluster-word matches with Hittite from KN 32a

## A-K: <br> Ak meaning "be bent (of elbow)"

Dataset 4.144.3. Cluster-word matches with Middle Egyptian from KN 32a

### 4.145 Artefact KN 32b

$$
\begin{gathered}
\text { S-P: } \\
\mathrm{sVpV}^{\mathrm{c}} \text { meaning "falcon" } \\
\hline
\end{gathered}
$$

Dataset 4.145.1. Cluster-word matches with Common Semitic from KN 32b

## SA-PU:

sappu meaning "tuft, bristle, spike, tentacle"
Dataset 4.145.2. Cluster-word matches with Hittite from KN 32b

## S-P:

sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)" /
"times, twice" / "deed, act" / "matter, affair, case" / "occasion, chance, venture, success, condition"
Dataset 4.145.3. Cluster-word matches with Middle Egyptian from KN 32b

### 4.146 Artefact MA 1a

D-M:
dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place"
$\mathrm{M}-\mathrm{N}$ :
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"
Dataset 4.146.1. Cluster-word matches with Common Semitic from MA 1a

## MI-NU:

minu meaning "alone, solely"
Dataset 4.146.2. Cluster-word matches with Hittite from MA 1a

> I-D-W:
> idw meaning "pestilence"

I-D:
id meaning "boy" / "assault" / "bull"
D-W:
dw meaning "give, place, put, implant (obstacle), strike (blow), cause"
Dw meaning "bad, evil, sad (of heart)" / "evilly" / "mountain" / "the Evil One"
Dwi meaning "call upon (god)" / "separate"
Q-D:
qd meaning "builder" / "build, fashion (men)" / "form, nature, reputation, character, disposition, extent" / "pot" / "use the potter's wheel" /
"potter (as epitaph of Khnum)" / "sleep" / "go round"
D-M:
dmi meaning "be joined (to), accrue (to), cleave (to), suit (someone), befall (someone)"/ "touch, reach (a place)" / "vicinity" / "town, quarter (of town), abode, vicinity, quay" dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"

## $\mathrm{M}-\mathrm{N}$ :

mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)"/ "so-and-so, someone"
Dataset 4.146.3. Cluster-word matches with Middle Egyptian from MA 1a

### 4.147 Artefact MA 1b

A-M:
${ }^{\circ}$ am meaning "maid, girl"
${ }^{\circ} \mathrm{am}(\mathrm{m})$ meaning "elbow"
$\mathrm{M}-\mathrm{N}$ :
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"
Dataset 4.147.1. Cluster-word matches with Common Semitic from MA 1b

> MI-NU:
> minu meaning "alone, solely"

Dataset 4.147.2. Cluster-word matches with Hittite from MA 1b

> A-M:
> ama meaning "smear"
> am meaning "swallow"
> Am meaning "burn up"

Q-D:
qd meaning "builder" / "build, fashion (men)" / "form, nature, reputation, character, disposition, extent" / "pot" / "use the potter's wheel" / "potter (as epitaph of Khnum)" / "sleep" / "go round"

> D-M:
dmi meaning "be joined (to), accrue (to), cleave (to), suit (someone), befall (someone)"/ "touch, reach (a place)" / "vicinity" / "town, quarter (of town), abode, vicinity, quay" dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"

## M-N:

mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"
Dataset 4.147.3. Cluster-word matches with Middle Egyptian from MA 1b

### 4.148 Artefact MA 2a

| D-R: |
| :---: |
| dVr meaning "drive away, make go" / "run freely", "run tirelessly" |
| dūr meaning "turn" |

Dataset 4.148.1. Cluster-word matches with Common Semitic from MA 2a

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.148.2. Cluster-word matches with Middle Egyptian from MA 2a

### 4.149 Artefact MA 2c

M-U-T:
mut meaning "man", "nobleman"
muṭ meaning "pull, stretch"
mūt meaning "die"
Dataset 4.149.1. Cluster-word matches with Common Semitic from MA 2c

MA-U:
mau meaning "fall, drop, sink, fail, abort"
Dataset 4.149.2. Cluster-word matches with Hittite from MA 2c
$\mathrm{N}-\mathrm{N}:$
nn meaning "not"

Dataset 4.149.3. Cluster-word matches with Middle Egyptian from MA 2c

### 4.150 Artefact PK 1

T-T:
$t \underline{V} \underline{t} V^{0}$ meaning "cacare"
$t^{\text {t }} \mathrm{V}^{\mathrm{c}}-\mathrm{t} \mathrm{V}^{\mathrm{c}}$ meaning "trample"
T-R:
$\mathrm{tVrV}^{0}$ meaning "lift"
tVr meaning "push gently"
K-M:
ḳm meaning "sweep" / "burn"
$\mathrm{kVmV}{ }^{\circ}$ meaning "bind"
S-I:
̂̂龴ī meaning "wish"
I-N:

|  | ${ }^{\circ} \mathrm{in}$ meaning "spread (of water)" |
| :---: | :---: |
|  | T-S: <br> ṭūŝ meaning "fly", "jump up" |
|  | N-M: <br> nim meaning "lie, gossip" |
|  | T-S: <br> ṭū̂̂ meaning "fly", "jump up" |
|  | M-T: <br> maṭ meaning "stick, branch" mVt meaning "son" |
| T-Z: <br> tīz meaning "pierce and tremble (of arrow)" | T-Z: <br> tīz meaning "pierce and tremble (of arrow)" |
|  | M-T: <br> maṭ meaning "stick, branch" mVt. meaning "son" |
|  | T-T: $\stackrel{t}{V} \underline{t} V^{v}$ meaning "cacare" $\stackrel{t}{\mathrm{~V}^{c}-t} \mathrm{~V}^{\mathrm{c}}$ meaning "trample" |
|  | M-K: <br> mak $V{ }^{\circ}$ meaning "vessel for offerings" |

Dataset 4.150.1. Cluster-word matches with Common Semitic from PK 1

A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

T-T:
tit meaning "(written) sign" / "image, form, shape, figure, design" Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"

K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"
S-I-N:
sin meaning "rub, rub out, obliterate, rub together" / "wait (for)" / "run" / "sever (neck)" / "pass away (die)" / "be sealed with clay" / "clay" / "courier"

I-N:
in meaning "eyebrows" / "cordage (of ship" / "by, so says"
ina meaning "chin"
N-T-S:
nts meaning "she"

## T-S:

Ts meaning "sandbank, drought" / " model (face of sphinx), build (monuments)" / "neck" / "vertebra, spine" / "speech, utterance, phrase, sentence, maxim" /
"join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)" /
"clot, become constricted" / "tie (knot), tie on (fillet), weave (cloth)" /
"marshal (troops), levy (troops), order, arrange (rites), knot itself up" ts meaning "smash (heads), grind (corn), split (wood)"
$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" nmi meaning "travel, traverse" / "shout (of people), low (of cattles)"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man"
mTA meaning "flout, vex"
I-T:
it meaning "barley, corn"
M-T-T:
mtt meaning "exact moment" / "dead woman"
T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
M-K-I:
mki meaning "guard, protect, look after (horse)"
M-K:
mk meaning "behold" / "protector" / "boat"
maka meaning "brave"
K-I-T:
kit meaning "shout of acclaim"
kAi meaning "think about, plan"
I-T:
it meaning "barley, corn"
iTA meaning "steal" / "thief"

Dataset 4.150.2. Cluster-word matches with Middle Egyptian from PK 1

### 4.151 Artefact PA 1

> | $\mathrm{A}-\mathrm{KU}:$ |
| :---: |
| aku meaning "stone" |

Dataset 4.151.1. Cluster-word matches with Hittite from PA 1

A-K:
Ak meaning "be bent (of elbow)"
Dataset 4.151.2. Cluster-word matches with Middle Egyptian from PA 1

### 4.152 Artefact PH 1a

## D-R:

dir meaning "drip", "flow abundantly"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
R-D:
rac ${ }^{\text {c }}$ meaning "storm, thunder"
D-N:
dīn meaning "long rain"
dVn meaning "be bent" / "be strong" / "cut off"
Dataset 4.152.1. Cluster-word matches with Common Semitic from PH 1a

```
D-R-D:
DrD meaning "leaf"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
D-N:
dn meaning "cut off (heads), kill (someone)"
```

Dataset 4.152.2. Cluster-word matches with Middle Egyptian from PH 1a

### 4.153 Artefact PH 2

| ${ }^{\text {casi meaning "bite" }}$ |
| :---: |
| S-T: <br> śVt meaning "tie, weave" |
| $\begin{gathered} \text { D-K: } \\ \text { dīk meaning "rooster" } \\ \text { dik(ḳ) meaning "be small", "be thin, fine" } \end{gathered}$ |
| $\begin{gathered} \text { P-R: } \\ \text { pir meaning "fruit" } \\ \mathrm{pVr} \text { meaning "break" / "forbid, refuse" / "fly, flee" } \end{gathered}$ |
| S-P: <br> sVpV c meaning "falcon" |

Dataset 4.153.1. Cluster-word matches with Common Semitic from PH 2

A-SE:
as meaning "remain, stay, be left"
SA-PA:
sap meaning "peel, pluck, trim, stroke, skim"
Dataset 4.153.2. Cluster-word matches with Hittite from PH 2

A-S-T:
Ast meaning "Isis (goddess, divinity)"
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan"/
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/ "a type of cake, bread"

S-T:
ST meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official"

## S-S-P:

Ssp meaning "palm (of hand), one seventh of a cubit (measurement)" /
"take, accept, receive, assume (crown), catch (fish), purchase, wear (clothes)"/
"cucumber" / "statue, image" / "white, bright" / "dawn, light"
sSp meaning "be white, be bright" / "make bright, lighten (darkness)"

## S-S:

SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill"
sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to)" ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?"
sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/
"writing, depiction, record, papyrus roll, letter, document"
S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
Dataset 4.153.3. Cluster-word matches with Middle Egyptian from PH 2

### 4.154 Artefact PH 3a

> P-R:
> parāc meaning "axe"
> par meaning "rat"
> pVr meaning "break" / "forbid, refuse" / "fly, flee"

Dataset 4.154.1. Cluster-word matches with Common Semitic from PH 3a

PA-RA:
parā meaning "blown air, breath, breathing, blast"
parā meaning "further(more), in addition" (adverb);
"forth, ahead, along; away, out, over" (preverb)
"fore, ahead; next (to), following" (prefix)
Dataset 4.154.2. Cluster-word matches with Middle Egyptian from PH 3a

### 4.155 Artefact PH 6

| I-N: |
| :---: |
| in meaning "spread (of water)" |
| A-R: |
| arr meaning "greens, vegetables" |
| N-T-A: |
| nVta meaning "go out" |
| N-T: |
| nVta ${ }^{\circ}$ meaning "go out" |
| A-R: |
| arr meaning "greens, vegetables" |
| D-P: |
| dVpa meaning "be hot" |
| dVp meaning "push" |
| S-R: |
| šār meaning "wind" |

Dataset 4.155.1. Cluster-word matches with Common Semitic from PH 6

## PA-I:

pai meaning "give, pay, offer, furnish, consign, render"
pai meaning "go; go ahead; head for, resort to"
Dataset 4.155.2. Cluster-word matches with Hittite from PH 6

I-N-W:
inw meaning "pattern, model" / "matting" / "produce (of region), quarry (of hunter)" / "tribute (of subject lands), gifts (from palace), dues (to be paid)"

## I-N:

in meaning "eyebrows" / "cordage (of ship" / "by, so says" ina meaning "chin"
$\mathrm{N}-\mathrm{W}$ :
nw meaning "see, look" / "this, these" / "hunter" / "weakness, be weak" /
"time, for a while"
nwi meaning "care for, take care of, collect, assemble"
A-R:
Ar meaning "drive away (from)"
T-A-R:
Tar meaning "make fast, fasten (on), take possession of (lordship by king)"
I-D:
id meaning "boy" / "assault" / "bull"
D-P:
dp meaning "taste (verb), experience" / "Dep (Delta City)"
I-S-R:
isr meaning "tamarisk tree" / "tamarisk"
I-S:
is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" / "be light (of weight)", "go! (imperative)"
iS meaning "saliva"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.155.3. Cluster-word matches with Middle Egyptian from PH 6

### 4.156 Artefact PH 7a

| D-P: "be hot" |
| :---: |
| $d V$ pa $^{\text {meaning "be }}$ |
| dVp meaning "push" |
| U-D: |

$$
\begin{gathered}
\text { cud meaning "count" } \\
\text { D-R: } \\
\text { dir meaning "drip", "flow abundantly" } \\
\text { dVr meaning "drive away, make go" / "run freely", "run tirelessly" } \\
\text { R-K: } \\
\text { rik meaning "be thin, be weak" } \\
\text { rVk meaning "pour out", "sprinkle" } \\
\text { R-M: } \\
\text { rVm meaning "roar" } \\
\text { rim meaning "be rotten (of bones)", "be worn, be frayed" } \\
\text { M-N: } \\
\text { mVnV' meaning "hold, take hold of" } \\
\text { D-R: } \\
\text { dVr meaning "drive away, make go" "run freely", "run tirelessly" } \\
\text { dār meaning "dwelling", "house", "granary" }
\end{gathered}
$$

Dataset 4.156.1. Cluster-word matches with Common Semitic from PH 7a

## D-P:

dp meaning "taste (verb), experience" / "Dep (Delta City)"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
R-K:
rk meaning "time (of king, of ancients)" / "but, now"
R-M-N:
rmn meaning "shoulder, arm, uprights (of ladder), side" / "half (of rod, aroura)"/ "professional shrine"

R-M:
rm meaning "fish"
$\mathrm{M}-\mathrm{N}$ :
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"

## S-D-R:

sDr meaning "spend the night, sleep, lie down, go to rest, be inert, inactive, do in the night" / "department (of the Residence)"

## S-D:

Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice"
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
sDA meaning "adviser?" / "travel, depart (in sense of die)"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.156.2. Cluster-word matches with Middle Egyptian from PH 7a

### 4.157 Artefact PH 7b

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.157.1. Cluster-word matches with Common Semitic from PH 7b

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dataset 4.157.2. Cluster-word matches with Middle Egyptian from PH 7b

### 4.158 Artefact PH 14b

| A-M: |
| :---: |
|  <br>  <br>  <br>  <br>  <br>  <br>  $\mathrm{am}(\mathrm{m})$ meaning "elbow" |

Dataset 4.158.1. Cluster-word matches with Common Semitic from PH 14b

A-M:
am meaning "swallow, breathe in, absorb, know"
Am meaning "burn, burn up"
Dataset 4.158.2. Cluster-word matches with Middle Egyptian from PH 14b

### 4.159 Artefact PH 15a

## M-T:

maṭ meaning "stick, branch"
mVt meaning "son"
Dataset 4.159.1. Cluster-word matches with Common Semitic from PH 15a

## M-T-R:

mtr meaning "testify concerning, exhibit (virtues), charge (tasks), instruct" / "be famous, renowned" / "fame, renown"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"

T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.159.2. Cluster-word matches with Middle Egyptian from PH 15a

### 4.160 Artefact PH 16a

## T-N:

tin meaning "fig tree"
$t ̣ V n V$ meaning "weave", "tie, plait"
ṭin meaning "buzz, tinkle", "call"
ṭīn meaning "clay, earth, dirt"
Dataset 4.160.1. Cluster-word matches with Common Semitic from PH 16a

## T-N:

tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"
Dataset 4.160.2. Cluster-word matches with Middle Egyptian from PH 16a

### 4.161 Artefact PH 28a

> K-P:
> $\mathrm{kVpa}{ }^{\mathrm{o}}$ meaning "go away"
> A-R:
> ār meaning "greens, vegetables"

Dataset 4.161.1. Cluster-word matches with Common Semitic from PH 28a

## A-PA:

apa meaning "that (one); he, she, it; thy, thine, your(s)"
KI-PA:
kippa meaning "shelter for divine icons, large enough for human entry, pitched at outdoor cult spots, combustible for ritual purposes"
Dataset 4.161.2. Cluster-word matches with Hittite from PH 28a

> A-R:
> Ar meaning "drive away (from)"

Dataset 4.161.3. Cluster-word matches with Middle Egyptian from PH 28a

### 4.162 Artefact PH 30

## M-R-R:

marr meaning "hoe, spade", "iron spade"
M-R:
mar meaning "drop" / "(be) bitter" / "healthy, strong" mar ${ }^{\text {P }}$ meaning "son", "master", "man, husband"

R-M:
rim meaning "be rotten (of bones)", "be worn, be frayed"
rVm meaning "roar"
Dataset 4.162.1. Cluster-word matches with Common Semitic from PH 30

M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" /
"libation trough" / "bind" / "milk jar"
R-R:
rr meaning "time"
rri meaning "boar"
R-M:
rm meaning "fish"
M-D:
mD meaning "ten" / "deep"
Dataset 4.162.2. Cluster-word matches with Middle Egyptian from PH 30

### 4.163 Artefact PH(?) 31a

M-D:
madi meaning "bronze vessel"
K-P:
$\mathrm{kVpa}{ }^{\circ}$ meaning "go away"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
$\mathrm{N}-\mathrm{R}$ :
nūr meaning "light"
P-T:
pVt meaning "cloth"

Dataset 4.163.1. Cluster-word matches with Common Semitic from PH(?) 31a

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
PA-TA:
pat(a) meaning "foot, leg; footing, base"
Dataset 4.163.2. Cluster-word matches with Hittite from $\mathrm{PH}(?)$ 31a

| M-D: |
| :---: |
| mD meaning "ten" / "deep" |
| $\mathrm{N}-\mathrm{R}:$ |
| nr meaning "charge (after enemy)" "time, return of the year" |

Dataset 4.163.3. Cluster-word matches with Middle Egyptian from PH(?) 31a

### 4.164 Artefact PH(?) 31b

D-R:
dur meaning "drip", "flow abundantly"
dūr meaning "turn"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
T-R:
$\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
R-M:
rVm meaning "roar"
rūm meaning "be high"
M-T:
maṭ meaning "stick, branch"
mVt meaning "son"
A-M:
${ }^{\circ}$ am meaning "maid, girl"
${ }^{\circ} \mathrm{am}(\mathrm{m})$ meaning "elbow"
Dataset 4.164.1. Cluster-word matches with Common Semitic from PH(?) 31b

```
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" / "subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dri meaning "strong (of staff), strongly" / "be hard, stolid" / "enclosing wall"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully,
```

```
            worship (god), show respect" / "time, season"
                    R-M-T:
        rmT meaning "man, men, mankind, Egyptians"(collective noun)
            R-M:
            rm meaning "fish"
                    M-T:
    mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)"/
    "vessel, duct, muscle"(anatomical) / "dead man, mortal man"
                            A-M:
                am meaning "swallow, breathe in, absorb, know"
            Am meaning "burn, burn up"
                            M-D:
mD meaning "ten" / "deep"
```

Dataset 4.164.2. Cluster-word matches with Middle Egyptian from PH(?) 31b

### 4.165 Artefact PYR 1

## T-M:

tVmV meaning "swear"
ṭVm meaning "close (ears)"

## M-R:

mar meaning "drop" / "(be) bitter" / "healthy, strong" mar ${ }^{\text {² }}$ meaning "son", "master", "man, husband"
Dataset 4.165.1. Cluster-word matches with Common Semitic from PYR 1

## T-M:

tm meaning "perish, cease" / "close (the mouth), to hush"/
"be complete, complete, entire, everything, the universe"

## M-R-W-T:

mrwt meaning "love, will, desire"
M-R-W:
mrw meaning "servants, underlings, partisans, supporters" / "weavers" / "bulls"/ "a type of wood" / "harbours?" / "desert" / "strip (of cloth)" / "canals, artificial lake"

M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"

R-W-T:
rwt meaning "dance, palpitate" / "gate"

## R-W:

rwi meaning "dance, clap (hands), palpitate (of heart)" / "advance against" /
"leave (a place)" / "expel/drive off/remove (someone, something), escape (harm)"/ "go away, depart, pass away, serve (someone)" / "vineyard?" rw meaning "lion"
Dataset 4.165.2. Cluster-word matches with Middle Egyptian from PYR 1

### 4.166 Artefact TY 2

P-D:
pd meaning "knee",
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" /"stretch out (man on ground)"/
"extend (oneself in effort), draw (bow), diffuse (perfume)"

Dataset 4.166.1. Cluster-word matches with Middle Egyptian from TY 2

### 4.167 Artefact TY 3a

$\mathrm{N}-\mathrm{K}:$
nVk meaning "pour out"

## K-T:

kVt meaning "weak"
kVt. meaning "be massive"
$\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
kūt meaning "feed"
Dataset 4.167.1. Cluster-word matches with Common Semitic from TY 3a

> A-KU:
> aku meaning "stone"

Dataset 4.167.2. Cluster-word matches with Hittite from TY 3a
N-K:
nk meaning "copulate"
A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive,
be angry, attack, anger"
K-A:
KA meaning "bull" / "soul, spirit, essence (of being), personality, will (of king),
fortune, kingship"
kA meaning "so, then"
A-D-W:
aDw/adw meaning "Buri fish"

Adw meaning "aggressor"
A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

D-W:
dw meaning "give, place, put, implant (obstacle), strike (blow), cause"
Dw meaning "bad, evil, sad (of heart)" / "evilly" / "mountain" / "the Evil One" dwA meaning "praise, worship" / "rise early"

Dwa meaning "lancet, surgical knife"
A-K:
Ak meaning "be bent (of elbow)"
K-T:
kt meaning "other, another" / "pettiness"
Dataset 4.167.3. Cluster-word matches with Middle Egyptian from TY 3a

### 4.168 Artefact TY 3b

## K-R-S:

kVrVš meaning "freeze"
kVriś meaning "cut into pieces"
K-R:
kVrV meaning "call, shout"
$\mathrm{k} V r$ meaning "drying"
R-S:
rVî meaning "sprinkle"
$\mathrm{rVš} \mathrm{~V}^{\mathrm{c}}$ meaning "treat severely", "be evil, behave badly"
P-K:
pīk meaning "be thin, be narrow"
pVkV meaning "split, break, wound"
K-Z:
kūz meaning "unite, collect"
kuz meaning "be dry"
Dataset 4.168.1. Cluster-word matches with Common Semitic from TY 3b

## KI-RI:

kir meaning "heart; center, core"
Dataset 4.168.2. Cluster-word matches with Hittite from TY 3b

## R-S:

Dataset 4.168.3. Cluster-word matches with Middle Egyptian from TY 3b

### 4.169 Artefact ZA 1a

K-R:
kVVV meaning "call, shout"
kVr meaning "drying"
Dataset 4.169.1. Cluster-word matches with Common Semitic from ZA 1a

## KI-RE:

kir meaning "heart; center, core"
Dataset 4.169.2. Cluster-word matches with Hittite from ZA 1a

### 4.170 Artefact GO Wc 1a

## A-S:

${ }^{c} a s ̂$ meaning "bite"
S-M:
šVma ${ }^{\text {c }}$ meaning "hear"
Dataset 4.170.1. Cluster-word matches with Common Semitic from GO Wc 1a

A-SA:
as meaning "remain, stay, be left"
Dataset 4.170.2. Cluster-word matches with Hittite from GO Wc 1a
A-S:
aS meaning "summon" /"cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"

Dataset 4.170.3. Cluster-word matches with Middle Egyptian from GO Wc 1a

### 4.171 Artefact ARKH 1a

T-P:
ṭp meaning "be full " / "jump" / "take, grasp", "clap", "give", "stretch hand"
A-R:
ār meaning "greens, vegetables"
A-S:

> | caŝ meaning "bite" |
| :---: |
| K-S-N: |
| kišan meaning "bean" |
| K-S: |
| kīs meaning "end, finish" |
| kîsis meaning "break, split"" |
| kVŝ meaning "pierce" |
| kVŝa` meaning "peel" |
| S-N: |
| šan meaning "year" |
| šVnV meaning "trot" |

Dataset 4.171.1. Cluster-word matches with Common Semitic from ARKH 1a

## A-RA:

ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur"
ar meaning "come (to), arrive (at), be at hand"
A-PA:
apa meaning "that (one); he, she, it; thy, thine, your(s)"
KI-SA:
kis meaning "turn out to be, come about, take place, happen, occur"
Dataset 4.171.2. Cluster-word matches with Hittite from ARKH 1a

## T-P:

tp meaning "head, headman, chief, tip (of toe), example (mathematics), the best of"/
"principal (financial)" / "upon" / "person, people"
A-R:
Ar meaning "drive away (from)"
A-S-M:
aSm meaning "image (of god)
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/
"a type of cake, bread"
M-K-S:
mks meaning "container (for documents)" / "sceptre"
M-K:

> mk meaning "behold" / "protector" / "boat"
> mki meaning "guard, protect, look after (horse)"

K-S:
ks meaning "pose"
S-N:
sna meaning "turn back, repulse, repel, police (district), detain, dart about (of fish)" / "constable, policeman" / "breast" / "storm - cloud"
sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" /
"tree" / "smell (perfume), breathe (air), kiss"
Dataset 4.171.3. Cluster-word matches with Middle Egyptian from ARKH 1a

### 4.172 Artefact ARKH 1b

```
P-R:
parā̄ \({ }^{\text {c }}\) meaning "axe" pa \({ }^{\circ} \mathrm{r}\) meaning "rat"
pVr meaning "break" / "forbid, refuse" / "fly, flee"
```

Dataset 4.172.1. Cluster-word matches with Common Semitic from ARKH 1b

### 4.173 Artefact ARKH 2

```
D-T:
dVt meaning "beat, push"
K-R:
kur meaning "ball"
kVrV meaning "call, shout"
kVr meaning "drying"
\(\mathrm{kVra}{ }^{\mathrm{c}}\) meaning "strike (with a stick)"
A-S:
\({ }^{\circ}\) aši \({ }^{\circ}\) meaning "iron"
\({ }^{c}\) aŝ meaning "bite"
D-T:
dVt meaning "beat, push"
T-I:
tī meaning "flow", "pour (of rain)"
A-S:
\({ }^{c} a s ̂ ~ m e a n i n g ~ " b i t e " ~\)
S-P:
sVpV meaning "falcon"
šup meaning "soar" / "tie", "plait", "sew"
šūp meaning "smell, sniff (around)" / "grind"
```

R-M:
rVm meaning "roar"
rūm meaning "be high"
Dataset 4.173.1. Cluster-word matches with Common Semitic from ARKH 2

KU-RA:
kura meaning "field parcel, territory, area, subdivision"
A-SI:
as meaning "remain, stay, be left"
Dataset 4.173.2. Cluster-word matches with Hittite from ARKH 2

```
S-D-T:
Sdt meaning "dough" / "Crocodilopolis (locality)" sDt meaning "fire, flame"
S-D:
Sd meaning "artificial lake" / "vulva" / "mortar (for pounding drugs)" / "poultice"
sD meaning "break up (hailstorm), rupture (cist), inflict (wound), fracture, rupture" /
"break, break into, invade, breach (wall), break open (way)"
sd meaning "tail" / "clothe"
sDA meaning "adviser?" / "travel, depart (in sense of die)"
D-T:
Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" /
"serf" / "body, image, bodily form (of god, statues), self"
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan"/
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/
"a type of cake, bread"
D-Q:
dq meaning "flour, powder"
S-P-W:
spw meaning "fragments, bundles"
```


## S-P:

```
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
P-W:
pw meaning "this" / "who?, what?, whichever"
R-M:
```

rm meaning "fish"
Dataset 4.173.3. Cluster-word matches with Middle Egyptian from ARKH 2

### 4.174 Artefact ARKH 3a

K-N:
kin meaning "cereal"
kīn meaning "forge"
Dataset 4.174.1. Cluster-word matches with Common Semitic from ARKH 3a

### 4.175 Artefact ARKH 4a

| N-T: |
| :---: |
| nVta meaning "go out" |
| P-T: |
| pVtg meaning "cloth"" |
| T-N: |
| tin meaning "fig tree" |
| tVVnV meaning "weave", "tie, plait" |
| ṭin meaning "buzz, tinkle", "call" |
| ṭin meaning "clay, earth, dirt" |

Dataset 4.175.1. Cluster-word matches with Common Semitic from ARKH 4a

> D-S:
> ds meaning "flint" / "jar" / "knife"
> T-N:
> tn meaning "this"
> Tn meaning "you, your" / "where? whence?"
> Tni meaning "basin" / "old man" / "Thinis" /
> "lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

Dataset 4.175.2. Cluster-word matches with Middle Egyptian from ARKH 4a

### 4.176 Artefact ARKH 4b

## D-M:

dVm meaning "wound" / "moan" / "dwell', "last", "stay a long time in one place"
K-R:
kVrV meaning "call, shout"
kVr meaning "drying"
Dataset 4.176.1. Cluster-word matches with Common Semitic from ARKH 4b

## A-KI:

ak meaning "die; be killed; be legally executed"
Dataset 4.176.2. Cluster-word matches with Hittite from ARKH 4b

## D-M:

dmi meaning "be joined (to), accrue (to), cleave (to), suit (someone), befall (someone)" / "touch, reach (a place)" / "vicinity" / "town, quarter (of town), abode, vicinity, quay" dm meaning "be sharp, sharpen, pierce (sky)" /
"pronounce, proclaim (name), mention (by name), be renowned (of office)"
Dataset 4.176.3. Cluster-word matches with Middle Egyptian from ARKH 4b

### 4.177 Artefact ARKH 5

D-N:
dun meaning "buzz" dūn meaning "remain"/ "weak"
dVn meaning "be bent" / "be strong" / "cut off"
$\mathrm{N}-\mathrm{T}$ :
$n V t a{ }^{\circ}$ meaning "go out"
T-N:
$t ̣ \bigvee n V$ meaning "weave", "tie, plait"

A-D-R: ${ }^{\circ}$ adar meaning "metal vessel"

D-R:
dVr meaning "drive away, make go" / "run freely", "run tirelessly" dār meaning "dwelling", "house", "granary"
Dataset 4.177.1. Cluster-word matches with Common Semitic from ARKH 5

A-D-N-T:
aDnt meaning "crucible?" / "armband, armlet"
A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"/
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

D-N-T:
dnit meaning "basket" / "ditch, canal" / "dam" / "a festival" / "bowl"
D-N:
dni meaning "share out" / "dam (water), construct (dam), hold back, restrain (someone), revet (earthen banks)" dn meaning "cut off (heads), kill (someone)"

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"

Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.177.2. Cluster-word matches with Middle Egyptian from ARKH 5

### 4.178 Artefact ARKH 6

D-N:
dVn meaning "be bent" / "be strong" / "cut off"
$\mathrm{N}-\mathrm{T}$ :
nVta ${ }^{\text {a }}$ meaning "go out"
T-R:
$\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
Dataset 4.178.1. Cluster-word matches with Common Semitic from ARKH 6

D-N:
dn meaning "cut off (heads), kill (someone)"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.178.2. Cluster-word matches with Middle Egyptian from ARKH 6

### 4.179 Artefact KH 4

> D-R:
> dur meaning "drip", "flow abundantly" dūr meaning "turn"
> dVr meaning "drive away, make go" / "run freely", "run tirelessly"

Dataset 4.179.1. Cluster-word matches with Common Semitic from KH 4

> A-D:
> aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
> "perceive" / "fatten?" / "edge, margin (of cultivation)"
> Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive,
be angry, attack, anger"
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
Dataset 4.179.2. Cluster-word matches with Middle Egyptian from KH 4

### 4.180 Artefact KH 5

> D-K:
> dak(k) meaning "bench", "staircase"
> K-S:
> kīs meaning "end, finish" kîis meaning "break, split"
> kVî meaning "pierce"
> S-K:
> šVḳ meaning "drink", "give a drink"
> šVkac meaning "knock"
> A-R:
> ār meaning "greens, vegetables"
> U-D
> 'ud meaning "count"
> W-S:
> $\mathrm{wVs} \mathrm{V}^{\mathrm{c}}$ meaning "climb, mount" $\mathrm{wVsa}{ }^{\mathrm{c}}$ meaning "be spatious, big"
> S-N:
> šan meaning "year"
> šVnV ${ }^{\top}$ meaning "trot"
> K-P:
> $\mathrm{kVpa}{ }^{\mathrm{o}}$ meaning "go away"
> paz meaning "pure gold"

Dataset 4.180.1. Cluster-word matches with Common Semitic from KH 5

## KI-SI:

kis meaning "turn out to be, come about, take place, happen, occur"
A-RA:
ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"

SA-SA:
sasa meaning "goat"
sasā meaning "ornithomantic bird"

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.180.2. Cluster-word matches with Hittite from KH 5

## A-D:

aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

K-S:
ks meaning "pose"
ksi meaning "bend down, bow down, be prostrate"
S-K:
sk meaning "wipe, wipe out, wipe away" / "fell (trees)"
A-R:
Ar meaning "drive away (from)"
W-S-S:
wsS meaning "pass (fluid), urinate" / "die out (of a race)"
W-S:
wS meaning "be destroyed, fall out, desolate (a place)" / "urinate"
wSA meaning "fatten" / "utter (plaudites), recite (praises)"
wSa meaning "eat a morsel, chew"
ws meaning "crack, chink, small window"
S-S-N:
sSn meaning "lotus" / "weave"
ssn meaning "cause to pass" / "breathe, smell"
S-S:
sasa meaning "deface"
sAsA meaning "drive back, repel, force (ship over), apply (oil)
saSA meaning "make numerous, multiply" / "police, policeman" / "escort"
SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill"
sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to)
ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?"
sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/

```
                    "writing, depiction, record, papyrus roll, letter, document"
    S-N:
    sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" /
            "tree"/ "smell (perfume), breathe (air), kiss"
W-N:
wn meaning "be stripped off (of branches of trees)" / "fault, blame" /
"open, open up, rip open" / "Hare"
\(\mathrm{N}-\mathrm{D}\) :
nD meaning "confer (office), appoint (someone)" / "save, protect, guard against (magic), make good (harm), protection, protector" / "grind" / "thread" /
"take counsel, ask advice, consult, enquire about, call upon, utter"
```

Dataset 4.180.3. Cluster-word matches with Middle Egyptian from KH 5

### 4.181 Artefact KH 6

| D-S: <br> dīš meaning "trample" |
| :---: |
| T-N: <br> ṭVnV meaning "weave", "tie, plait" |
| $\mathrm{N}-\mathrm{R}$ : nūr meaning "light" |
| $\begin{gathered} \text { K-S-N: } \\ \text { kišan meaning "bean" } \end{gathered}$ |
| K-S: <br> kīs meaning "end, finish" kîis meaning "break, split" kVî meaning "pierce" kVŝa ${ }^{3}$ meaning "peel" |
| S-N: <br> šan meaning "year" <br> s $\mathrm{VnV}^{\text { }}$ meaning "trot" |
| P-S: pVsa ºeaning "tear into pieces" pVs meaning "destroy, break" pVs meaning "spread", "smear", "scatter" / "distribute" |
| U-R: <br> ${ }^{\circ}$ ur meaning "set fire" |

Dataset 4.181.1. Cluster-word matches with Common Semitic from KH 6

## KI-SA:

kis meaning "turn out to be, come about, take place, happen, occur"
Dataset 4.181.2. Cluster-word matches with Hittite from KH 6

$$
\begin{gathered}
\text { D-S: } \\
\text { ds meaning "flint" / "jar" / "knife" } \\
\text { T-N-R: } \\
\text { Tnr meaning "eager, valour" } \\
\text { T-N: } \\
\text { tn meaning "this" } \\
\text { Tn meaning "you, your" / "where? whence?"" } \\
\text { Tni meaning "basin" / "old man" /"Thinis" / } \\
\text { "lift up, promote, distinguish (from), be distinguished (of actions)" } \\
\text { tni meaning "old age" / "grow old" / "signs of old age (external)" } \\
\text { N-R: } \\
\text { nr meaning "charge (after enemy)" / "time, return of the year" } \\
\text { K-S: } \\
\text { ks meaning "pose" } \\
\text { S-N: } \\
\text { sn meaning "they, them, their" / "open" / "reveal" / "brother" / "husband" / } \\
\text { "tree" / "smell (perfume), breathe (air), kiss" } \\
\text { Dataset 4.181.3. Cluster-word matches with Middle Egyptian from KH 6 }
\end{gathered}
$$

### 4.182 Artefact KH 7a

$\mathrm{N}-\mathrm{S}$ :
nVs meaning "dictate (a letter)"
T-T:
$t \mathrm{~V}$ taV ${ }^{0}$ meaning "cacare"
$t \mathrm{~V}^{\mathrm{c}}-\underline{t} \mathrm{~V}^{\mathrm{c}}$ meaning "trample"
Dataset 4.182.1. Cluster-word matches with Common Semitic from KH 7a

## T-T:

Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
Dataset 4.182.2. Cluster-word matches with Middle Egyptian from KH 7a

### 4.183 Artefact KH 7b

> T-I:
> tī meaning "flow", "pour (of rain)"
> P-N:
> pVnv meaning "side, direction"

Dataset 4.183.1. Cluster-word matches with Common Semitic from KH 7b

```
I-S:
is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" / "be light (of weight)", "go! (imperative)"
iS meaning "saliva"
P-N:
pn meaning "this, he of" pna meaning "turn upside down"
```

Dataset 4.183.2. Cluster-word matches with Middle Egyptian from KH 7b

### 4.184 Artefact KH 9

> A-S:
> ªši̊ meaning "iron"
> ${ }^{\text {caŝ meaning "bite" }}$
> S-P:
> sVpV meaning "falcon",
> šup meaning "soar" / "tie", "plait", "sew"
> šūp meaning "smell, sniff (around)"/ "grind"

Dataset 4.184.1. Cluster-word matches with Common Semitic from KH 9

A-SI-SU:
ass meaning "be favoured, be dear, be good"
A-SI:
as meaning "remain, stay, be left"
Dataset 4.184.2. Cluster-word matches with Hittite from KH 9

## A-S:

aS meaning "summon" / "cedar" / "cedar - oil" / "groan" /
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/ "a type of cake, bread"

S-S-P:
Ssp meaning "palm (of hand), one seventh of a cubit (measurement)" / "take, accept, receive, assume (crown), catch (fish), purchase, wear (clothes)"/
"cucumber" / "statue, image" / "white, bright" / "dawn, light"
sSp meaning "be white, be bright" / "make bright, lighten (darkness)"
S-S:
ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?"

```
    sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/
        "writing, depiction, record, papyrus roll, letter, document"
                            S-P-A:
                spA meaning "centipede"
                    S-P:
        sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
    "be blind, make blind"/"flow out, depart (of morbid fluid, evil spirit)"/
        "times, twice" / "deed, act" / "matter, affair, case" /
            "occasion, chance, venture, success, condition"
                    P-A:
                pA meaning "this, the"
                            I-S:
is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" /
        "be light (of weight)", "go! (imperative)"
                            iS meaning "saliva"
```

Dataset 4.184.3. Cluster-word matches with Middle Egyptian from KH 9

### 4.185 Artefact KH 10

$$
\begin{gathered}
\text { P-S: } \\
\text { pVsa" meaning "tear into pieces" } \\
\text { pVs meaning "destroy, break" } \\
\text { pVî̀ meaning "spread", "smear", "scatter" / "distribute" }
\end{gathered}
$$

Dataset 4.185.1. Cluster-word matches with Common Semitic from KH 10

## PA-SA:

pas meaning "swallow, devour, ingest, consume"
A-KI:
ak meaning "die; be killed; be legally executed"
Dataset 4.185.2. Cluster-word matches with Hittite from KH 10

```
                                    I-P:
ipA meaning "private office"
    ip meaning "accounting, estimation"" / "set in order, muster, assemble"/
        "exact, detail, claim, examine, recognise, take heed of/
            "count, reckon up, make reckoning, assess, allot"
                            A-K:
Ak meaning "be bent (of elbow)"
```

Dataset 4.185.3. Cluster-word matches with Middle Egyptian from KH 10

### 4.186 Artefact KH 11

## T-I:

## tī meaning "flow", "pour (of rain)"

Dataset 4.186.1. Cluster-word matches with Common Semitic from KH 11

```
A-D:
    aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"/
            "perceive"/ "fatten?" / "edge, margin (of cultivation)"
    Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive,
                be angry, attack, anger"
                    A-T:
AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
    Dataset 4.186.2. Cluster-word matches with Middle Egyptian from KH 11
```


### 4.187 Artefact KH 13

> | A-S-R: |
| :---: |
| caṣr meaning "time, age" |
| A-S: |
| caŝ meaning "bite" |
| D-I: |
| di meaning "sickness" |

Dataset 4.187.1. Cluster-word matches with Common Semitic from KH 13

## A-SE:

as meaning "remain, stay, be left"
Dataset 4.187.2. Cluster-word matches with Hittite from KH 13

```
A-S-R:
ASr meaning "roast, roast meat, a roast"
A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan"/
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/
"a type of cake, bread"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.187.3. Cluster-word matches with Middle Egyptian from KH 13
```


### 4.188 Artefact KH 14

| A-M: |
| :---: |
|  |
|  <br>  <br>  <br>  <br>  <br>  <br> am meaning "maid, girl" meaning "elbow" |

Dataset 4.188.1. Cluster-word matches with Common Semitic from KH 14

## A-M:

Ama meaning "a perching bird"
ama meaning "smear"
Am meaning "burn, burn up"
Dataset 4.188.2. Cluster-word matches with Middle Egyptian from KH 14

### 4.189 Artefact KH 16

> T-I:
> tī meaning "flow"," "pour (of rain)"

Dataset 4.189.1. Cluster-word matches with Common Semitic from KH 16

```
I-S:
is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" / "be light (of weight)", "go! (imperative)"
iS meaning "saliva"
```

Dataset 4.189.2. Cluster-word matches with Middle Egyptian from KH 16

### 4.190 Artefact KH 20

> A-S: $\begin{gathered}\text { }{ }^{\text {assi̊ }} \mathrm{i} \text { meaning "iron"" } \\ \text { caŝ meaning "bite" }\end{gathered}$ S-K-R: šVḳVr meaning "pierce" S-K: šVk meaning "drink", "give a drink" K-R: kVrV meaning "call, shout" kVr meaning "drying" ḳVa ${ }^{\text {meaning "strike (with a stick)" }}$ D-R: dur meaning "drip", "flow abundantly" dūr meaning "turn"

Dataset 4.190.1. Cluster-word matches with Common Semitic from KH 20

A-SI:
as meaning "remain, stay, be left"
KI-RA:
kir meaning "heart; center, core"
Dataset 4.190.2. Cluster-word matches with Hittite from KH 20

A-S:
aS meaning "summon" / "cedar" / "cedar - oil" / "groan"/
"act as pilot, pilot"
As meaning "bald-headed vulture" / "hurry, flow fast, hasten, overtake"/ "a type of cake, bread"

S-K-R:
skr meaning "Sokar (god)" (divinity) / "adorn, decorate"
S-K:
sk meaning "wipe out, wipe, wipe away" / "fell (trees)" ski meaning "destroy" / "perish" / "accusation"

D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)" /
"subdue (enemies), expel, drive out (people, illness)" /
"lay down (flooring), overlay (floor)"
Dataset 4.190.3. Cluster-word matches with Middle Egyptian from KH 20

### 4.191 Artefact KH 23

## A-D:

aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"
Dataset 4.191.1. Cluster-word matches with Middle Egyptian from KH 23

### 4.192 Artefact KH 29

$\mathrm{K}-\mathrm{P}:$
$\mathrm{kVpa}^{\rho}$ meaning "go away"

Dataset 4.192.1. Cluster-word matches with Common Semitic from KH 29

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.192.2. Cluster-word matches with Hittite from KH 29

### 4.193 Artefact KH 39

> A-TA:
> atta meaning "father"?

Dataset 4.193.1. Cluster-word matches with Hittite from KH 39

## A-T:

AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
Dataset 4.193.2. Cluster-word matches with Middle Egyptian from KH 39

### 4.194 Artefact KH 40

| S-N: |
| :---: |
|  |
| šVnV meaning "trot" |

Dataset 4.194.1. Cluster-word matches with Common Semitic from KH 40

```
    S-N:
    sn meaning "they, them, their"/ "open" / "reveal" / "brother" / "husband" /
    "tree" / "smell (perfume), breathe (air), kiss"
```

Dataset 4.194.2. Cluster-word matches with Middle Egyptian from KH 40

### 4.195 Artefact KH 41

## K-T:

kVt meaning "weak"
kVt meaning "be massive"
$\mathrm{kVt} \mathrm{V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
T-R:
$\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
Dataset 4.195.1. Cluster-word matches with Common Semitic from KH 41

K-T:
Kt meaning "other, another" / "pettiness"
kAt meaning "work, construction, craft, profession" / "vagina"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.195.2. Cluster-word matches with Middle Egyptian from KH 41

### 4.196 Artefact KH 47

> Q-N:
> qn meaning "brave man" / "fat" / "offence, attack" / "mat"

Dataset 4.196.1. Cluster-word matches with Middle Egyptian from KH 47

### 4.197 Artefact KH 51

> S-I:
> $\hat{S i s}^{\top}$ meaning "wish"

Dataset 4.197.1. Cluster-word matches with Common Semitic from KH 51

## S-I-S:

sis meaning "six - weave linen"

## I-S:

is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" /
"be light (of weight)", "go! (imperative)"
iS meaning "saliva"
Dataset 4.197.2. Cluster-word matches with Middle Egyptian from KH 51

### 4.198 Artefact KH 52

## T-U:

țūㄲ ${ }^{\text {meaning "go and come", "come" }}$
Dataset 4.198.1. Cluster-word matches with Common Semitic from KH 52

### 4.199 Artefact KH 53

A-M:
${ }^{\circ}$ am meaning "maid, girl"
${ }^{\circ} \mathrm{am}(\mathrm{m})$ meaning "elbow"
Dataset 4.199.1. Cluster-word matches with Common Semitic from KH 53

## A-M:

Am meaning "burn, burn up"
Dataset 4.199.2. Cluster-word matches with Middle Egyptian from KH 53

### 4.200 Artefact KH 59

> D-N:
> dīn meaning "long rain" dVn meaning "be bent" / "be strong" / "cut off"

Dataset 4.200.1. Cluster-word matches with Common Semitic from KH 59
D-N:
dn meaning "cut off (heads), kill (someone)"

Dataset 4.200.2. Cluster-word matches with Middle Egyptian from KH 59

### 4.201 Artefact KH 60

R-K:
rVk meaning "pour out", "sprinkle"
K-T:
kVt meaning "weak"
kVt meaning "be massive"
$\mathrm{kVṭ} \mathrm{~V}^{\mathrm{c}}$ meaning "finish, be finished", "be spent"
T-N:
ṭVnV meaning "weave", "tie, plait"
N-S:
nVs meaning "dictate (a letter)"

Dataset 4.201.1. Cluster-word matches with Common Semitic from KH 60

## KI-TA:

kita meaning "cult functionary who 'cries' in ritual, usually in company with other performers"
Dataset 4.201.2. Cluster-word matches with Hittite from KH 60
R-K:
rk meaning "time (of king, of ancients)" / "but, now"
K-T-N:
kTn meaning "charioteer""
K-T:
Kt meaning "other, another" / "pettiness"
T-N:
tn meaning "this"
Tn meaning "you, your"/ "where? whence?"
Tni meaning "basin" /"old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)"
tni meaning "old age" / "grow old" / "signs of old age (external)"

Dataset 4.201.3. Cluster-word matches with Middle Egyptian from KH 60

### 4.202 Artefact KH 74

> D-S:
> ds meaning "flint" / "jar" / "knife"

Dataset 4.202.1. Cluster-word matches with Middle Egyptian from KH 74

### 4.203 Artefact KH 79

$$
\begin{gathered}
\text { P-D: } \\
\mathrm{pd} \text { meaning "knee" } \\
\mathrm{pD} \text { meaning "stretch (cord in foundation ceremony)"/ } \\
\text { "measure (for pigment)" / "stretch out (man on ground)"/ } \\
\text { "extend (oneself in effort), draw (bow), diffuse (perfume)" }
\end{gathered}
$$

Dataset 4.203.1. Cluster-word matches with Middle Egyptian from KH 79

### 4.204 Artefact KH 83

> D-N:
> dīn meaning "long rain"
> dVn meaning "be bent" / "be strong" / "cut off"

Dataset 4.204.1. Cluster-word matches with Common Semitic from KH 83

## A-D:

aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive,
be angry, attack, anger"
D-N:
dn meaning "cut off (heads), kill (someone)"

Dataset 4.204.2. Cluster-word matches with Middle Egyptian from KH 83

### 4.205 Artefact KH 86

| P-N: |
| :---: |
| pVnv meaning "side, direction"" |
| pVn meaning "turn" |

Dataset 4.205.1. Cluster-word matches with Common Semitic from KH 86

### 4.206 Artefact ZA 4a

T-R:
tir meaning "stick with a hook" / "run fast", "hurry, hasten"
tīr meaning "part of the building", "wall, fence"
$\mathrm{tVrV}^{\circ}$ meaning "lift"
tVr meaning "push gently"
T-M-S:
tVmVš meaning "squeeze"
T-M:
tVmV meaning "swear"
ṭVm meaning "close (ears)"
M-S:
$m V s ̌ V^{\circ}$ meaning "rob"
I-N:
${ }^{\text {in }}$ meaning "spread (of water)"
$\mathrm{N}-\mathrm{M}$ :
num meaning "lie, gossip"
M-R:
mar meaning "drop" / "(be) bitter" / "healthy, strong" mar" meaning "son", "master", "man, husband"

S-P:
šip meaning "wool"
šīp meaning "bank, coast" / "beam"
sVpV c meaning "falcon"
P-K:
pīk meaning "be thin, be narrow"

## $\mathrm{pVk} \mathrm{V}^{\mathrm{c}}$ meaning "split, break, wound"

Dataset 4.206.1. Cluster-word matches with Common Semitic from ZA 4a

## A-T:

AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

T-M-S:
Tms meaning "be besmeared" / "red, ruddy, violet" tms meaning "turn (the face to someone)"

T-M:
tm meaning "perish, cease" / "close (the mouth), to hush" / "be complete, complete, entire, everything, the universe"

## M-S:

ms meaning "bring, present, bring away booty, extend (hand), take (aim)"/ "calf" / "child" / "surely, indeed" / "bouquet"

Q-S:
qs meaning "bone"
I-N-M:
inm meaning "skin (of man/animal), hues (of sky), development, complexion"

## I-N:

in meaning "eyebrows" / "cordage (of ship)" / "by, so says"
$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"

S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)"/
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
Dataset 4.206.2. Cluster-word matches with Middle Egyptian from ZA 4a

### 4.207 Artefact ZA 5a

S-K:

```
šuk meaning "harrow (verb)"/ "cut (ears)"
šūk meaning "push" / "march and stumble"
    šVk meaning "drink", "give a drink"
\(\mathrm{K}-\mathrm{N}\) :
    kin meaning "cereal"
    kīn meaning "forge"
    N-M:
        nim meaning "lie, gossip"
    T-N:
    ṭVnV meaning "weave", "tie, plait"
```

Dataset 4.207.1. Cluster-word matches with Common Semitic from ZA 5a

SA-MI
sami meaning "vapor, steam, fume(s), smoke"
Dataset 4.207.2. Cluster-word matches with Hittite from ZA 5a

S-K-N:
skn meaning "embroil (in quarrels)" / "be greedy, lust (after)"
S-K:
sk meaning "wipe out, wipe, wipe away" / "fell (trees)"
ski meaning "destroy" / "perish" / "accusation"
K-N-M:
knm meaning "wrap (in)"
K-N: kni meaning "sullenness, be sullen"

N-M:
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)"
tni meaning "old age" / "grow old" / "signs of old age (external)"
M-D:
mD meaning "ten" / "deep"
Dataset 4.207.3. Cluster-word matches with Middle Egyptian from ZA 5a

### 4.208 Artefact ZA 5b



Dataset 4.208.1. Cluster-word matches with Common Semitic from ZA 5b

I-N-M:
inm meaning "skin (of man/animal), hues (of sky), development, complexion"

## I-N:

in meaning "eyebrows" / "cordage (of ship" / "by, so says"
$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"

## S-P:

sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" / "be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)" /
"times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
M-K-I:
mki meaning "guard, protect, look after (horse)"
M-K:
mk meaning "behold"/ "protector"/ "boat"
maka meaning "brave"
K-I-T:
kit meaning "shout of acclaim"
K-I:
kAi meaning "think about, plan"
I-T:
it meaning "barley, corn"

Dataset 4.208.2. Cluster-word matches with Middle Egyptian from ZA 5b

### 4.209 Artefact ZA 6a

$$
\begin{gathered}
\text { T-M: } \\
\text { tVmV meaning "swear", } \\
\text { tVm meaning "close (ears)" } \\
\text { P-R: } \\
\text { pVr meaning "break" / "forbid, refuse" / "fly, flee" }
\end{gathered}
$$

Dataset 4.209.1. Cluster-word matches with Common Semitic from ZA 6a
W-N:
wn meaning "be stripped off (of branches of trees)", "fault, blame"/
"open, open up, rip open" / "Hare"
T-M:
tm meaning "perish, cease" / "close (the mouth), to hush"/
"be complete, complete, entire, everything, the universe"
I-S:
is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" /
"be light (of weight)", "go! (imperative)"
iS meaning "saliva"

Dataset 4.209.2. Cluster-word matches with Middle Egyptian from ZA 6a

### 4.210 Artefact ZA 6b

## I-M:

ima meaning "a tree" / "be gracious" / "be delighted (with), charmed (with)"/ "pleasing (to)" / "kind, gentle, well-disposed, pleasing, charmed" im meaning "in, with, by means of, from, out of, as, namely, when, as though, together with" / "there, therein, therewith, therefrom" / "form, shape, side"
Dataset 4.210.1. Cluster-word matches with Middle Egyptian from ZA 6b

### 4.211 Artefact ZA 7a

## A-R:

ār meaning "greens, vegetables"
T-M:
tVmV meaning "swear"
ṭ Vm meaning "close (ears)"
Dataset 4.211.1. Cluster-word matches with Common Semitic from ZA 7a

A-RA:
ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"

A-RE:
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"
Dataset 4.211.2. Cluster-word matches with Hittite from ZA 7a

A-R-T:
Art meaning "heaven, sky"
A-R:
Ar meaning "drive away (from)"

## T-M:

tm meaning "perish, cease" / "close (the mouth), to hush"/
"be complete, complete, entire, everything, the universe"
Dataset 4.211.3. Cluster-word matches with Middle Egyptian from ZA 7a

### 4.212 Artefact ZA 7b

## A-M:

Ama meaning "a perching bird"
ama meaning "smear"
Am meaning "burn, burn up"
Dataset 4.212.1. Cluster-word matches with Middle Egyptian from ZA 7b

### 4.213 Artefact ZA 8

K-R:
kVVV meaning "call, shout"
kVr meaning "drying"
$\mathrm{kVra}^{\mathrm{c}}$ meaning "strike (with a stick)"
T-R:
$\mathrm{tVrV}^{0}$ meaning "lift"
tVr meaning "push gently"
K-T:

```
                    kVt meaning "weak"
            kVt_ meaning "be massive"
kVṭV}\mp@subsup{}{}{c}\mathrm{ meaning "finish, be finished", "be spent"
            kūt meaning "feed"
                            T-K:
    tuk meaning "press", "destroy, cut"
                            A-R:
        ār meaning "greens, vegetables"
                            N-T:
        nVta}\mp@subsup{}{}{\circ}\mathrm{ meaning "go out"
                            T-I-N:
            tin meaning "fig tree"
        ṭin meaning "buzz, tinkle", "call"
            ṭīn meaning "clay, earth, dirt"
                            T-I:
        tī meaning "flow","pour (of rain)"
            I-N:
        `in meaning "spread (of water)"
                            N-M:
        num meaning "lie, gossip"
                            M-K:
maḳV}\mp@subsup{}{}{`}\mathrm{ meaning "vessel for offerings"
                    K-I:
        kī`}\mathrm{ meaning "spit"
                            K-I-S:
            kīs meaning "end, finish"
            kîis meaning "break, split"
                    D-I:
                    di}\mp@subsup{}{}{\circ}\mathrm{ meaning "sickness"
                    P-T:
pVt meaning "cloth"
                            K-I:
kī`
```

Dataset 4.213.1. Cluster-word matches with Common Semitic from ZA 8

## KI-RA:

| kir meaning "heart; center, core" |
| :---: |
| A-TA: |
| atta meaning "father" |
| A-RI: |
| ar meaning "stand (by), be stationed; be present, occur" |
| ar meaning "come (to), arrive (at), be at hand" |

Dataset 4.213.2. Cluster-word matches with Hittite from ZA 8

## T-R:

tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

K-T:
Kt meaning "other, another" / "pettiness"
T-K-R:
tkr meaning "opponent"
A-R:
Ar meaning "drive away (from)"
I-N-M:
inm meaning "skin (of man/animal), hues (of sky), development, complexion"
I-N:
in meaning "eyebrows" / "cordage (of ship" / "by, so says"
$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
M-K-I:
mki meaning "guard, protect, look after (horse)"
M-K:
mk meaning "behold" / "protector" / "boat"
maka meaning "brave"
K-I:
kAi meaning "think about, plan"
I-S:
is meaning "lie light (on)" / "old, ancient" / "tomb, council chamber, archive, workshop" /
"be light (of weight)", "go! (imperative)"
iS meaning "saliva"
D-I:
dAi meaning "subdue (lands)"

Dai meaning "extend (arm), oppose (oneself), pierce, transfix" / "reach out (of child's mouth after milk), take (the breast to), devour (food), provide (with)" /
"ferry (one across), cross (sky)"
I-P-T:
ipt meaning "Twelfth month (name and festival)" / "grain - measure of 4 heqat" /
"census"
I-P:
ip meaning "accounting, estimation"" / "set in order, muster, assemble"/
"exact, detail, claim, examine, recognise, take heed of/
"count, reckon up, make reckoning, assess, allot"
K-I:
kAi meaning "think about, plan"
I-R:
ir meaning "as to, if"
Dataset 4.213.3. Cluster-word matches with Middle Egyptian from ZA 8

### 4.214 Artefact ZA 9

R-S:
rVî meaning "sprinkle"
$\mathrm{rVš} \mathrm{~V}^{\mathrm{c}}$ meaning "treat severely", "be evil, behave badly"
S-R:
šīr meaning "go" / "sing"
T-N:
ṭVnV meaning "weave", "tie, plait"
R-M:
rVm meaning "roar"
M-T:
mVt meaning "son"
Dataset 4.214.1. Cluster-word matches with Common Semitic from ZA 9

NU-TI:
$n \bar{u}(t)$ meaning "contentment, enjoyment, profit"
A-TA:
atta meaning "father"
Dataset 4.214.2. Cluster-word matches with Hittite from ZA 9

R-S:
rs meaning "wake, be watchful, vigilant"

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"

## A-T:

AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

W-R-R:
wrr meaning "great, much, many, eldest, important"
W-R:
wr meaning "swallow (type of bird)" / "greatness (of size), sufficiency (of food), excess (of supplies), much, how much?" / "great one, magnate, chief, ruler (of foreign land)"

R-R-M-T:
rrmt meaning "mandrake"
R-R:
rr meaning "time"
R-M-T:
rmT meaning "man, men, mankind, Egyptians" (collective noun)
R-M:
rm meaning "fish"
M-T:
mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"
Dataset 4.214.3. Cluster-word matches with Middle Egyptian from ZA 9

### 4.215 Artefact ZA 10a

> T-N:

ṭVnV meaning "weave", "tie, plait"
K-M:
kVm meaning "sweep" / "burn"
$\mathrm{kVmV}^{\mathrm{s}}$ meaning "bind"
kūm meaning "stand up, get up"
$\mathrm{mVnV}{ }^{\mathrm{c}}$ meaning "hold, take hold of"
T-N:
$t ̣ V n V$ meaning "weave", "tie, plait"
A-M:
${ }^{\circ}$ am meaning "maid, girl"
${ }^{\circ} \mathrm{am}(\mathrm{m})$ meaning "elbow"
D-U:
Duc meaning "call, be called"
D-K:
duk meaning "pound"
duḳ meaning "crush", "break, beat"
K-M:
kVm meaning "sweep" / "burn"
$\mathrm{kVmV}^{\mathrm{s}}$ meaning "bind"
ḳūm meaning "stand up, get up"
M-N:
$\mathrm{mVnV}{ }^{\mathrm{c}}$ meaning "hold, take hold of"
D-I:
di ${ }{ }^{\text {meaning "sickness" }}$
P-T:
pVt meaning "cloth"
D-R:
dur meaning "drip", "flow abundantly"
dūr meaning "turn"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"

Dataset 4.215.1. Cluster-word matches with Common Semitic from ZA 10a

A-KU:
aku meaning "stone"
A-TA:
atta meaning "father"
Dataset 4.215.2. Cluster-word matches with Hittite from ZA 10a

T-N-T:
Tnt meaning "difference (between x and y )"
tnT meaning "spur - winged plover"
T-N:
tn meaning "this"

Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

A-K:
Ak meaning "be bent (of elbow)"
M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"

A-T:
AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
A-M:
Am meaning "burn, burn up"
M-D:
mD meaning "ten" / "deep"
A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe" /
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"

## M-N:

mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" /
"establish, press (with fingers)" / "so-and-so, someone"
D-I:
dAi meaning "subdue (lands)"
Dai meaning "extend (arm), oppose (oneself), pierce, transfix" / "reach out (of child's mouth after milk), take (the breast to), devour (food), provide (with)" /
"ferry (one across), cross (sky)"
I-P-T:
ipt meaning "Twelfth month (name and festival)" / "grain - measure of 4 heqat"/ "census"

I-P:
ip meaning "accounting, estimation"" / "set in order, muster, assemble"/ "exact, detail, claim, examine, recognise, take heed of/
"count, reckon up, make reckoning, assess, allot""
D-R:
dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"//
"lay down (flooring), overlay (floor)""

Dataset 4.215.3. Cluster-word matches with Middle Egyptian from ZA 10a

### 4.216 Artefact ZA 10b

## D-R:

dur meaning "drip", "flow abundantly"
dūr meaning "turn"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
M-K:
maḳ $V{ }^{\circ}$ meaning "vessel for offerings"
K-D:
kīd meaning "outside region"
D-T:
dVt meaning "beat, push"
S-M:
šamā meaning "sky"
šVma ${ }^{\text {c }}$ meaning "hear"
A-M:
${ }^{\circ}$ am meaning "maid, girl" ${ }^{\circ} \mathrm{am}(\mathrm{m})$ meaning "elbow"

M-T:
mVt meaning "son"
Dataset 4.216.1. Cluster-word matches with Common Semitic from ZA 10b

MA-ZA:
maz meaning "meet by force, stand up, confront, brave, challenge; match, measure up to"

MI-TA:
mit(t)a meaning "red"; "red wool"
Dataset 4.216.2. Cluster-word matches with Hittite from ZA 10b

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"

## M-K:

mk meaning "behold" / "protector" / "boat" mki meaning "guard, protect, look after (horse)"

## D-T:

Dt meaning "estate" / "cobra" / "papyrus stem" / "eternity, for ever" /
"serf" / "body, image, bodily form (of god, statues), self"
S-M:
smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" /
"scalp, side" / "ramp?" / "partake (of), make ready (a boat)" /
"unite, join (a company), associate (with), arrive (in)"
sm meaning "deed, event, affair, pastime'
sAm meaning "burn up" (causative)
Sma meaning "Upper Egyptian barley" / "make music"
A-D:
aD meaning "spool, reel" / "fat, grease" / "hack up, destroy" / "be safe"/
"perceive" / "fatten?" / "edge, margin (of cultivation)"
Ad meaning "decay" / "quiver, palpitate" / "be savage, be aggressive, be angry, attack, anger"

A-M:
Am meaning "burn, burn up"
M-T:
mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man"
mTA meaning "flout, vex"
R-R:
rr meaning "time"
K-K:
KK meaning "be dark (of child about to be born)"
Dataset 4.216.3. Cluster-word matches with Middle Egyptian from ZA 10b

### 4.217 Artefact ZA 11a

## D-D:

did meaning "elder", "honorable title"
dīd meaning "kind of clothes"
D-K:
dik(k) meaning "be small", "be thin, fine"
dīk meaning "rooster"
K-R:
$\mathrm{k} V r V$ meaning "call, shout"
kVr meaning "drying"
$\mathrm{kVra}{ }^{\mathrm{c}}$ meaning "strike (with a stick)"
R-M:
rVm meaning "roar"
R-M:
rVm meaning "roar"
M-S:
$m V s ̌ V$ ºaning "rob"
K-R:
kur meaning "ball"
kVrV meaning "call, shout"
kVr meaning "drying"
K-P:
$\mathrm{kVpa}{ }^{3}$ meaning "go away"
Dataset 4.217.1. Cluster-word matches with Common Semitic from ZA 11a

MA-SI:
masi meaning "how many (much)?" (interrogative/relative adjective)
E-KU:
eku meaning "drink; drink to, toast"

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.217.2. Cluster-word matches with Hittite from ZA 11a

## D-D:

Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect"/
"stable, enduring" / "the djed column"
R-M:
rm meaning "fish"
Dataset 4.217.3. Cluster-word matches with Middle Egyptian from ZA 11a

### 4.218 Artefact ZA 11b

T-R:
$\mathrm{tVrV}{ }^{\circ}$ meaning "lift"
tVr meaning "push gently"
K-P:
$\mathrm{kVpa}{ }^{\circ}$ meaning "go away"
Dataset 4.218.1. Cluster-word matches with Common Semitic from ZA 11b

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.218.2. Cluster-word matches with Hittite from ZA 11b

T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

I-D:
id meaning "boy" / "assault"
Dataset 4.218.3. Cluster-word matches with Middle Egyptian from ZA 11b

### 4.219 Artefact ZA 13

$$
\begin{gathered}
\text { S-P: } \\
\text { sVpV meaning "falcon"" } \\
\text { šup meaning "soar" / "tie", "plait", "sew" } \\
\text { šūp meaning "smell, sniff (around)"/ "grind" }
\end{gathered}
$$

Dataset 4.219.1. Cluster-word matches with Common Semitic from ZA 13

## S-P:

sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" /
"be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)" / "times, twice" / "deed, act" / "matter, affair, case" / "occasion, chance, venture, success, condition"
Dataset 4.219.2. Cluster-word matches with Middle Egyptian from ZA 13

### 4.220 Artefact ZA 14


mVt meaning "son"
T-Z:
tīz meaning "pierce and tremble (of arrow)"
P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
pan meaning "face"
Dataset 4.220.1. Cluster-word matches with Common Semitic from ZA 14

MI-TI:
miti meaning "red"; "red wool"
Dataset 4.220.2. Cluster-word matches with Hittite from ZA 14

| M-K: |
| :---: |
| mk meaning "behold" / "protector"/ "boat" |
| P-N: |
| pn meaning "this, he of" |
| $\mathrm{N}-\mathrm{K}:$ |
| nk meaning "copulate" |
| $\mathrm{K}-\mathrm{S}:$ |
| ks meaning "pose" |
| $\mathrm{P}-\mathrm{N}:$ |
| pn meaning "this, he of" |

Dataset 4.220.3. Cluster-word matches with Middle Egyptian from ZA 14

### 4.221 Artefact ZA 15a

| K-N: <br> $\mathrm{kVna}{ }^{\circ}$ meaning "kill" |
| :---: |
| N-S: nVs meaning "dictate (a letter)" $n V \mathrm{sa}^{\text {c }}$ meaning "tear out"" |
| T-N: <br> tin meaning "fig tree" <br> ṭin meaning "buzz, tinkle", "call" <br> ṭin meaning "clay, earth, dirt" <br> $t ̣ \mid V n V$ meaning "weave", "tie, plait" |
| $\begin{gathered} \text { N-S: } \\ \text { nVs meaning "dictate (a letter)" } \\ \hline \end{gathered}$ |

```
    niš meaning "man"
    nVsa}\mp@subsup{}{}{c}\mathrm{ meaning "tear out"
nVŜac meaning "introduce a medicine through the nose", "sniff, snuffle"
    I-N:
            `in meaning "spread (of water)"
                            N-M:
                            num meaning "lie, gossip"
                            M-R:
mar meaning "drop" / "(be) bitter" / "healthy, strong"
    mar" meaning "son", "master", "man, husband"
S-P:
šip meaning "wool"
šīp meaning "bank, coast" / "beam"
            sVpV
P-K:
pīk meaning "be thin, be narrow"
pVḳV
S-K:
šVk meaning "drink", "give a drink"
K-M:
kVm meaning "sweep" / "burn"
\(\mathrm{kVmV}^{\mathrm{s}}\) meaning "bind"
M-S:
\(\mathrm{mVš} \mathrm{~V}{ }^{\text {a }}\) meaning "rob"
```

Dataset 4.221.1. Cluster-word matches with Common Semitic from ZA 15a

KU-NA:
kunna meaning "right (hand/side); right, favourable, successful"
SA-MI:
sami meaning "vapor, steam, fume(s), smoke"
Dataset 4.221.2. Cluster-word matches with Hittite from ZA 15a

## Q-S: <br> qs meaning "bone"

I-T:
iTi meaning "take, take possession of, conduct, remove, arrest, conquer, spend, pass, move, rob"
it meaning "barley, corn"

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" / "lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

I-N-M:
inm meaning "skin (of man/animal), hues (of sky), development, complexion"

## I-N:

in meaning "eyebrows" / "cordage (of ship" / "by, so says"
$\mathrm{N}-\mathrm{M}$ :
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" / "sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"

S-P:
sp meaning "misdeed, fault" / "medicine, dose, portion (of food)" / "be blind, make blind"/ "flow out, depart (of morbid fluid, evil spirit)"/ "times, twice" / "deed, act" / "matter, affair, case" /
"occasion, chance, venture, success, condition"
S-M:
sm meaning "deed, event, affair, pastime'
sAm meaning "burn up" (causative)
M-D:
mD meaning "ten" / "deep"
S-K:
sk meaning "wipe, wipe out, wipe away" / "fell (trees)"
K-M:
km meaning "black" / "completion, profit, duty" /
"total up, amount to, complete, put an end to, pay (to)"

## M-S:

ms meaning "bring, present, bring away booty, extend (hand), take (aim)"/
"calf" / "child" / "surely, indeed" / "bouquet"
Dataset 4.221.3. Cluster-word matches with Middle Egyptian from ZA 15a

### 4.222 Artefact ZA 18a

## D-R:

dVr meaning "drive away, make go" / "run freely", "run tirelessly"

> dār meaning "dwelling", "house", "granary"
> R-K:
rVḳ meaning "pour out", "sprinkle"
Dataset 4.222.1. Cluster-word matches with Common Semitic from ZA 18a

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/
"subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
R-K:
rk meaning "time (of king, of ancients)" / "but, now"
Dataset 4.222.2. Cluster-word matches with Middle Egyptian from ZA 18a

### 4.223 Artefact ZA 20

```
D-R:
dur meaning "drip", "flow abundantly"
dūr meaning "turn"
dVr meaning "drive away, make go" / "run freely", "run tirelessly"
S-T-T:
šitt meaning "lady"
S-T:
śVt meaning "tie, weave"
T-T:
\(t \mathrm{Vt}^{\mathrm{t}}{ }{ }\) meaning "cacare"
\(t^{\mathrm{V}} \mathrm{V}^{\mathrm{c}} \mathrm{t} \mathrm{V}^{\mathrm{c}}\) meaning "trample"
S-T:
śVt meaning "tie, weave"
R-M:
rVm meaning "roar" rūm meaning "be high"
M-T:
maṭ meaning "stick, branch"
mVt meaning "son"
K-R:
kur meaning "ball"
\(\mathrm{k} V r V\) meaning "call, shout"
kVr meaning "drying"
\(\mathrm{kVra}^{\mathrm{c}}\) meaning "strike (with a stick)"
```

Dataset 4.223.1. Cluster-word matches with Common Semitic from ZA 20

## D-R:

dr meaning "remove (need, evil), repress (wrongdoer), destroy (places)"/ "subdue (enemies), expel, drive out (people, illness)"/
"lay down (flooring), overlay (floor)"
S-T:
ST meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official"

T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
R-M-T:
rmT meaning "man, men, mankind, Egyptians" (collective noun)
R-M:
rm meaning "fish"
M-T:
mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"

## T-S:

Ts meaning "sandbank, drought" / " model (face of sphinx), build (monuments)" / "neck" / "vertebra, spine" / "speech, utterance, phrase, sentence, maxim" / "join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)"/ "clot, become constricted" / "tie (knot), tie on (fillet), weave (cloth)" / "marshal (troops), levy (troops), order, arrange (rites), knot itself up" ts meaning "smash (heads), grind (corn), split (wood)"
Dataset 4.223.2. Cluster-word matches with Middle Egyptian from ZA 20

### 4.224 Artefact ZA 21a

$\mathrm{T}-\mathrm{M}:$
tVmV meaning "swear"
$\underline{\mathrm{tVm} m}$ meaning "close (ears)"

Dataset 4.224.1. Cluster-word matches with Common Semitic from ZA 21a

## T-M:

tm meaning "perish, cease" / "close (the mouth), to hush" /
"be complete, complete, entire, everything, the universe"
Dataset 4.224.2. Cluster-word matches with Middle Egyptian from ZA 21a

### 4.225 Artefact ZA 21b

## S-R:

šār meaning "wind"

| I-D: |
| :---: |
| id meaning "boy" / "assault" / "bull"" |
| S-R: |
| sr meaning "nobleman, magistrate" / "foretell, make known" |

Dataset 4.225.2. Cluster-word matches with Middle Egyptian from ZA 21b

### 4.226 Artefact ZA 23

## T-T:

$t \underline{V} \underline{t} V{ }^{\circ}$ meaning "cacare"
$t \mathrm{~V}^{\mathrm{c}}-\underline{t} \mathrm{~V}^{\mathrm{c}}$ meaning "trample"
Dataset 4.226.1. Cluster-word matches with Common Semitic from ZA 23

## T-T:

Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
M-R:
mR meaning "sorely" / "pain, ailment" / "sick, ill, diseased, painful" /
"sick man" / "pyramid" / "partisan, supporter"/ "canal, artificial lake" / "libation trough" / "bind" / "milk jar"
Dataset 4.226.2. Cluster-word matches with Middle Egyptian from ZA 23

### 4.227 Artefact ZA 24a

## D-M:

dam meaning "blood" dVm meaning "wound" / "moan" / "dwell", "last", "stay a long time in one place"

Dataset 4.227.1. Cluster-word matches with Common Semitic from ZA 24a

| I-D: |
| :---: |
| id meaning "boy" / "assault" / "bull" |
| D-M: |
| dm meaning "be sharp, sharpen, pierce (sky)" / |
| "pronounce, proclaim (name), mention (by name), be renowned (of office)" |
| dmA meaning "cut off (heads)" / "bind together" / "stretch, be stretched out" |

Dataset 4.227.2. Cluster-word matches with Middle Egyptian from ZA 24a

### 4.228 Artefact ZA 26a

> S-T:
> śVt meaning "tie, weave"
> D-D:
> did meaning "elder", "honorable title"

Dataset 4.228.1. Cluster-word matches with Common Semitic from ZA 26a

## S-T:

ST meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official"

D-D:
Dd meaning "say, speak, speak of, utter (speech), recite (spell), tell (to), expect"/ "stable, enduring" / "the djed column"
Dataset 4.228.2. Cluster-word matches with Middle Egyptian from ZA 26a

### 4.229 Artefact ZA 27

## D-K:

dīk meaning "rooster"
dik(k) meaning "be small", "be thin, fine"
Dataset 4.229.1. Cluster-word matches with Common Semitic from ZA 27

### 4.230 Artefact AP Za 1

$$
\begin{gathered}
\text { T-I: } \\
\text { tit }^{\mathrm{c}} \text { meaning "flow", "pour (of rain)" }
\end{gathered}
$$

Dataset 4.230.1. Cluster-word matches with Common Semitic from AP Za 1

### 4.231 Artefact AP Za 2

> | P-N: |
| :---: |
| pVnv meaning "side, direction" |
| pVn meaning "turn" |
| K-P: |
| kVpa" meaning "go away" |
| P-N: |
| pVnv meaning "side, direction" |
| pVn meaning "turn" |
| pan meaning "face" |
| T-N: |
| ṭnV meaning "weave", "tie, plait" |
| M-N: |
| mVnV' meaning "hold, take hold of" |
| I-N: |
| in meaning "spread (of water)" |

Dataset 4.231.1. Cluster-word matches with Common Semitic from AP Za 2

## KU-PA:

kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit"
Dataset 4.231.2. Cluster-word matches with Hittite from AP Za 2

```
P-N:
pn meaning "this, he of" pna meaning "turn upside down"
\(\mathrm{N}-\mathrm{M}:\)
nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
T-N-T:
Tnt meaning "difference (between x and y )" tnT meaning "spur - winged plover"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"
I-N:
in meaning "eyebrows" / "cordage (of ship" / "by, so says"
Dataset 4.231.3. Cluster-word matches with Middle Egyptian from AP Za 2
```


### 4.232 Artefact KN Za 10a

$$
\begin{gathered}
\text { T-N: } \\
\text { ṭVnV meaning "weave", "tie, plait" } \\
\text { N-M: } \\
\text { num meaning "lie, gossip" } \\
\text { M-U-T: } \\
\text { mut meaning "man", "nobleman" } \\
\text { muṭ meaning "pull, stretch" } \\
\text { mūt meaning "die" } \\
\text { S-R: } \\
\text { šār meaning "wind" } \\
\text { R-M: } \\
\text { rVm meaning "roar" } \\
\hline
\end{gathered}
$$

Dataset 4.232.1. Cluster-word matches with Common Semitic from KN Za 10a

```
                    SA-SA:
                            sasa meaning "goat"
sasā meaning "ornithomantic bird"
```


## SA-RA:

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.232.2. Cluster-word matches with Hittite from KN Za 10a

$$
\begin{gathered}
\text { T-N: } \\
\text { tn meaning "this" } \\
\text { Tn meaning "you, your" / "where? whence?" } \\
\text { Tni meaning "basin" / "old man" / "Thinis" / } \\
\text { "lift up, promote, distinguish (from), be distinguished (of actions)" } \\
\text { tni meaning "old age" / "grow old" / "signs of old age (external)" } \\
\text { N-M: } \\
\text { nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" } \\
\text { M-T: } \\
\text { mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" / } \\
\text { "vessel, duct, muscle" (anatomical) / "dead man, mortal man" } \\
\text { S-S: } \\
\text { saSA meaning "make numerous, multiply" / "police, policeman" / "escort" } \\
\text { SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill" } \\
\text { sSA meaning "beseech (from)" /"make progress"/"prayer" / "pray (to) } \\
\text { ss meaning "hurry" } \\
\text { Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?" } \\
\text { sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)" / } \\
\text { "writing, depiction, record, papyrus roll, letter, document" } \\
\text { S-R: } \\
\text { sr meaning "nobleman, magistrate" / "foretell, make known" } \\
\text { R-M: } \\
\text { rm meaning "fish", }
\end{gathered}
$$

Dataset 4.232.3. Cluster-word matches with Middle Egyptian from KN Za 10a

### 4.233 Artefact KN Za 10b

| W-T: |
| :---: |
| wt meaning "place of embalming" / "embalmer, bandager"" / "embalm" / |
| "bandage, bind" / "mummy - wrapping"" /"wrappings" |

Dataset 4.233.1. Cluster-word matches with Middle Egyptian from KN Za 10b

### 4.234 Artefact KN Za 19

M-N:
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"
Dataset 4.234.1. Cluster-word matches with Common Semitic from KN Za 19

## M-N:

mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"
Dataset 4.234.2. Cluster-word matches with Middle Egyptian from KN Za 19

### 4.235 Artefact KO Za 1a

T-I:
tīc meaning "flow", "pour (of rain)"
Dataset 4.235.1. Cluster-word matches with Common Semitic from KO Za 1a

> | A-TA: |
| :---: |
| atta meaning "father" |

Dataset 4.235.2. Cluster-word matches with Hittite from KO Za 1a

## A-T:

AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
Dataset 4.235.3. Cluster-word matches with Middle Egyptian from KO Za 1a

### 4.236 Artefact KO Za 1b

T-R-S:
tVrVš meaning "break"
T-R:
tVr meaning "push gently"
tVrV meaning "lift"
tūr meaning "turn" / "flow"
tur meaning "run fast", "hurry, hasten"
$\mathrm{rVš} \mathrm{~V}^{c}$ meaning "treat severely", "be evil, behave badly"
rVŝ meaning "sprinkle"
D-P-R:
$d V p V r$ meaning "squeeze", "push away"
D-P:
dVp meaning "push"
P-R:
pVr meaning "break" / "forbid, refuse" / "fly", "flee"
Dataset 4.236.1. Cluster-word matches with Common Semitic from KO Za 1b

## T-R:

tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"

R-S:
rs meaning "wake, be watchful, vigilant"
D-P:
dp meaning "taste (verb), experience" / "Dep (Delta City)"
P-R:
pr meaning "go up, ascend, be subtracted (mathematical)"
I-D:
id meaning "boy" / "assault" / "bull"
Dataset 4.236.2. Cluster-word matches with Middle Egyptian from KO Za 1b

### 4.237 Artefact KO Za 1c

$\mathrm{N}-\mathrm{K}$ :
nVk meaning "pour out"
K-N:
$\mathrm{kVna}{ }^{\circ}$ meaning "kill"
N-S:
nVs meaning "dictate (a letter)"
Dataset 4.237.1. Cluster-word matches with Common Semitic from KO Za 1c

| N-K: |
| :---: |
| nk meaning "copulate" |
| K-N-S: |
| kns meaning "pubic region?" |

Dataset 4.237.2. Cluster-word matches with Middle Egyptian from KO Za 1c

### 4.238 Artefact KO Za 1d

P-N:
pVnv meaning "side, direction"
pVn meaning "turn"
S-R:
šīr meaning "go" / "sing"
Dataset 4.238.1. Cluster-word matches with Common Semitic from KO Za 1d

| P-N: |
| :---: |
| pn meaning "this, he of" |
| pna meaning "turn upside down" |
| N-M: |
| nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)" |

S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
R-T:
rT meaning "now, but"
Dataset 4.238.2. Cluster-word matches with Middle Egyptian from KO Za 1d

### 4.239 Artefact PK Za 4

A-S:
${ }^{c} a s ̂$ meaning "bite"
S-R:
šār meaning "wind"
Dataset 4.239.1. Cluster-word matches with Common Semitic from PK Za 4

```
A-SA-SA:
as(s) meaning "remain, stay, be left"
ass meaning "be favoured, be dear, be good" asas meaning "make sit, place, establish, install"; "sit"
SA-SA:
sasa meaning "goat"
sasā meaning "ornithomantic bird"
SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
```

Dataset 4.239.2. Cluster-word matches with Hittite from PK Za 4

## S-S:

sasa meaning "deface"
sAsA meaning "drive back, repel, force (ship over), apply (oil) saSA meaning "make numerous, multiply" / "police, policeman" / "escort"
SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill"
sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to)
ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?"
sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)" /
"writing, depiction, record, papyrus roll, letter, document"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
Dataset 4.239.3. Cluster-word matches with Middle Egyptian from PK Za 4

### 4.240 Artefact PK Za 8

D-K:
dīk meaning "rooster"

```
dik(k) meaning "be small", "be thin, fine"
K-T:
kVt meaning "weak"
kVt meaning "be massive"
\(\mathrm{kVt} \mathrm{V}^{\mathrm{c}}\) meaning "finish, be finished", "be spent"
```

T-T:
$t \mathrm{VtV}{ }^{\text { }}$ meaning "cacare"
$t \mathrm{~V}^{\mathrm{c}}-\underline{t} \mathrm{~V}^{\mathrm{c}}$ meaning "trample"
K-N:
$\mathrm{kVna}{ }^{\circ}$ meaning "kill"
Dataset 4.240.1. Cluster-word matches with Common Semitic from PK Za 8

K-T:
Kt meaning "other, another" / "pettiness"
T-T:
Tt meaning "staff, gang, partisans" / "table" / "board, woodwork"
$\mathrm{N}-\mathrm{K}:$ nk meaning "copulate"

I-P:
ip meaning "accounting, estimation" " / "set in order, muster, assemble" /
"exact, detail, claim, examine, recognise, take heed of/
"count, reckon up, make reckoning, assess, allot"
Dataset 4.240.2. Cluster-word matches with Middle Egyptian from PK Za 8

### 4.241 Artefact PK Za 9

## MA-I:

mai meaning "grow, increase, thrive, mature, ripen, reach term, be born"
Dataset 4.241.1. Cluster-word matches with Hittite from PK Za 9

| M-I: |
| :---: |
| mi meaning "come! (imperative)" |
| mAi meaning "lion" |
| I-D: |
| id meaning "boy" / "assault" / "bull" |

Dataset 4.241.2. Cluster-word matches with Middle Egyptian from PK Za 9

### 4.242 Artefact PK Za 10

| P-N: |
| :---: |
| pVnv meaning "side, direction"" |
| pVn meaning "turn" |

M-N:
$\mathrm{mVnV}^{\mathrm{c}}$ meaning "hold, take hold of"
Dataset 4.242.1. Cluster-word matches with Common Semitic from PK Za 10

> P-N:
> pn meaning "this, he of" pna meaning "turn upside down"
> N-M:
> nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)"
> M-N:
mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" / "establish, press (with fingers)" / "so-and-so, someone"
Dataset 4.242.2. Cluster-word matches with Middle Egyptian from PK Za 10

### 4.243 Artefact HS Zg 1

A-M:
${ }^{\circ}$ am meaning "maid, girl"
${ }^{\circ} \mathrm{am}(\mathrm{m})$ meaning "elbow"
Dataset 4.243.1. Cluster-word matches with Common Semitic from HS Zg 1

| A-M: |
| :---: |
| Am meaning "burn, burn up" |

Dataset 4.243.2. Cluster-word matches with Middle Egyptian from HS Zg 1

### 4.244 Artefact IO Za 2a

```
                        T-I:
                tī
                    D-K:
                    dīk meaning "rooster"
            dik(k) meaning "be small", "be thin, fine"
                    K-T:
                            kVt meaning "weak"
            kVt_ meaning "be massive"
    kVṭ\mp@subsup{V}{}{c}}\mathrm{ meaning "finish, be finished", "be spent"
                            S-R:
                            šār meaning "wind"
                            R-M:
                            rVm meaning "roar"
```

> | $\mathrm{N}-\mathrm{K}:$ |
| :---: |
| nVk meaning "pour out" |
| $\mathrm{K}-\mathrm{N}:$ |
| kVna : meaning "kill" |
| $\mathrm{N}-\mathrm{S}:$ |
| nVs meaning "dictate (a letter)" |
| $\mathrm{P}-\mathrm{N}:$ |
| pVnv meaning "side, direction" |
| pVn meaning "turn" |

Dataset 4.244.1. Cluster-word matches with Common Semitic from IO Za 2a


## SA-RA

sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.244.2. Cluster-word matches with Hittite from IO Za 2a

A-T:
AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
K-T:
kit meaning "shout of acclaim" kt meaning "other, another" / "pettiness"

S-S:
sasa meaning "deface"
sAsA meaning "drive back, repel, force (ship over), apply (oil) saSA meaning "make numerous, multiply" / "police, policeman" / "escort" SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill" sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to) ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?" sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/
"writing, depiction, record, papyrus roll, letter, document"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
R-M:
rm meaning "fish"
N-K:
nk meaning "copulate"
K-N-S:
kns meaning "pubic region?"
I-P:
ip meaning "accounting, estimation"" / "set in order, muster, assemble" /
"exact, detail, claim, examine, recognise, take heed of/
"count, reckon up, make reckoning, assess, allot"
P-N:
pn meaning "this, he of"
pna meaning "turn upside down"
N-M:

Dataset 4.244.3. Cluster-word matches with Middle Egyptian from IO Za 2a

### 4.245 Artefact IO Za 2b

S-R:
šīr meaning "go" / "sing"
T-N:
ṭVnV meaning "weave", "tie, plait"
T-U:
ṭū ${ }^{\circ}$ meaning "go and come", "come"
T-N:
tin meaning "fig tree"
$t+V n V$ meaning "weave", "tie, plait" ṭin meaning "buzz, tinkle", "call"
tīn meaning "clay, earth, dirt"
Dataset 4.245.1. Cluster-word matches with Common Semitic from IO Za 2b

## S-R:

sr meaning "nobleman, magistrate" / "foretell, make known"
T-N-R:
Tnr meaning "eager, valour"
T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
$\mathrm{N}-\mathrm{R}$ :
nr meaning "charge (after enemy)" / "time, return of the year"

I-D:
id meaning "boy" / "assault"
Dataset 4.245.2. Cluster-word matches with Middle Egyptian from IO Za 2b

### 4.246 Artefact IO Za 3

## T-I:

tīc meaning "flow", "pour (of rain)"
Dataset 4.246.1. Cluster-word matches with Common Semitic from IO Za 3

## A-TA: <br> atta meaning "father"

Dataset 4.246.2. Cluster-word matches with Hittite from IO Za 3

## A-T: <br> AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"

Dataset 4.246.3. Cluster-word matches with Middle Egyptian from IO Za 3

### 4.247 Artefact IO Za 5

R-D:
racd meaning "storm, thunder"
Dataset 4.247.1. Cluster-word matches with Common Semitic from IO Za 5

```
    R-D:
rd meaning "foot" / "grow" / "shoot (of tree)"
```

Dataset 4.247.2. Cluster-word matches with Middle Egyptian from IO Za 5

### 4.248 Artefact IO Za 6

T-N:
$t ̣ \mid V n V$ meaning "weave", "tie, plait"
N-I:
nī ${ }^{\text {c }}$ meaning "turn", "be bent"
T-N:
tin meaning "fig tree"
$t ̣ V n V$ meaning "weave", "tie, plait" ṭin meaning "buzz, tinkle", "call"
ṭīn meaning "clay, earth, dirt"
I-N:
${ }^{\circ}$ in meaning "spread (of water)"
$\mathrm{N}-\mathrm{T}$ :
$n V t a{ }^{3}$ meaning "go out"

T-Z:
tīz meaning "pierce and tremble (of arrow)"
T-I:
tī ${ }^{\text {c }}$ meaning "flow", "pour (of rain)"
D-S:
dǐs meaning "trample"
S-K:
šVḳ meaning "drink", "give a drink"
R-M:
rVm meaning "roar"
Dataset 4.248.1. Cluster-word matches with Common Semitic from IO Za 6

## NA-I:

nai meaning "turn (in certain direction); lead, drive, move along, send, despatch"
NA-TA:
nata meaning "reed"; "straw, stalk"; "shaft, arrow"
SA-SA:
sasa meaning "goat"
sasā meaning "ornithomantic bird"
SA-RA:
sarā meaning "up; over, above, on high, prominent(ly)" (adverb, preverb, postposition)
Dataset 4.248.2. Cluster-word matches with Hittite from IO Za 6

## T-N-I:

Tni meaning "basin" / "old man" / "Thinis" /
"lift up, promote, distinguish (from), be distinguished (of actions)" tni meaning "old age" / "grow old" / "signs of old age (external)"

T-N:
tn meaning "this"
Tn meaning "you, your" / "where? whence?"
I-N:
in meaning "eyebrows" / "cordage (of ship" / "by, so says" ina meaning "chin"

D-S:
ds meaning "flint" / "jar" / "knife"
S-K:
sk meaning "wipe, wipe out, wipe away" / "fell (trees)"

```
S-S: sasa meaning "deface"
sAsA meaning "drive back, repel, force (ship over), apply (oil)
saSA meaning "make numerous, multiply" / "police, policeman" / "escort"
SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill"
sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to) ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?"
sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/
"writing, depiction, record, papyrus roll, letter, document"
```


## S-R:

```
sr meaning "nobleman, magistrate" / "foretell, make known"
R-M:
rm meaning "fish"
```

Dataset 4.248.3. Cluster-word matches with Middle Egyptian from IO Za 6

### 4.249 Artefact IO Za 7

T-I:
$\mathrm{ti}^{\mathrm{c}}$ meaning "flow", "pour (of rain)"
Dataset 4.249.1. Cluster-word matches with Common Semitic from IO Za 7

| A-TA: |
| :---: |
| atta meaning "father" |

Dataset 4.249.2. Cluster-word matches with Hittite from IO Za 7

## A-T:

AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
Dataset 4.249.3. Cluster-word matches with Middle Egyptian from IO Za 7

### 4.250 Artefact IO Za 9

$\mathrm{N}-\mathrm{K}:$
nVḳ meaning "pour out"

Dataset 4.250.1. Cluster-word matches with Common Semitic from IO Za 9

SA-SA:
sasa meaning "goat" sasā meaning "ornithomantic bird"
Dataset 4.250.2. Cluster-word matches with Hittite from IO Za 9

| S-S: |
| :---: |
| sasa meaning "deface" |
| sAsA meaning "drive back, repel, force (ship over), apply (oil) |
| saSA meaning "make numerous, multiply" / "police, policeman" / "escort" |

SsA meaning "be wise, be coverant (with), be skilled (in), know" / "wisdom, skill" sSA meaning "beseech (from)" / "make progress"/ "prayer" / "pray (to)" ss meaning "hurry"
Ss meaning "alabaster, vessels of alabaster" / "rope" / "bier?" sS meaning "scribe" / "write, inscribe, paint, draw, enrol (troops)"/
"writing, depiction, record, papyrus roll, letter, document"
$\mathrm{N}-\mathrm{K}$ :
nk meaning "copulate"
Dataset 4.250.3. Cluster-word matches with Middle Egyptian from IO Za 9

### 4.251 Artefact KH 79 + 89

M-N:
$\mathrm{mVnV}{ }^{\mathrm{c}}$ meaning "hold, take hold of"
P-T:
pVt meaning "cloth"
A-R:
ār meaning "greens, vegetables"
D-N:
dVn meaning "be bent" / "be strong" / "cut off"
Dataset 4.251.1. Cluster-word matches with Common Semitic from KH $79+89$

## PA-TA:

pat(a) meaning "foot, leg; footing, base"
A-RA:
ara meaning "belonging to one's own social group, congruent with social order" ara meaning "wash"
ar meaning "stand (by), be stationed; be present, occur" ar meaning "come (to), arrive (at), be at hand"

Dataset 4.251.2. Cluster-word matches with Hittite from KH 79 + 89

## M-N:

mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" / "sick man" / "be firm, established, enduring (of king)" /
"establish, press (with fingers)" / "so-and-so, someone"
A-R:
Ar meaning "drive away (from)"
P-D:
pd meaning "knee"
pD meaning "stretch (cord in foundation ceremony)"/
"measure (for pigment)" / "stretch out (man on ground)"/
"extend (oneself in effort), draw (bow), diffuse (perfume)"
Dataset 4.251.3. Cluster-word matches with Middle Egyptian from KH $79+89$

### 4.252 Artefact KH 88

> | $\mathrm{N}-\mathrm{M}:$ |
| :---: |
| num meaning "lie, gossip" |

Dataset 4.252.1. Cluster-word matches with Common Semitic from KH 88

$$
\begin{gathered}
\text { Q-N: } \\
\text { qn meaning "brave man" / "fat" / "offence, attack" / "mat" } \\
\text { N-M: } \\
\text { nm meaning "who?" / "go wrong (of plans), rob (with), steal (with)", } \\
\text { P-D: } \\
\text { pd meaning "knee", } \\
\text { pD meaning "stretch (cord in foundation ceremony)"/ } \\
\text { "measure (for pigment)" /"stretch out (man on ground)"/ } \\
\text { "extend (oneself in effort), draw (bow), diffuse (perfume)" } \\
\text { Dataset 4.252.2. Cluster-word matches with Middle Egyptian from KH } 88
\end{gathered}
$$

### 4.253 Artefact KH 90

## M-T-R:

maṭar meaning "streaming water", "rain"

## M-T:

maṭ meaning "stick, branch" $m V t \underline{m e a n i n g}$ "son"

T-R:
tVr meaning "push gently"
tVrV meaning "lift"
Dataset 4.253.1. Cluster-word matches with Common Semitic from KH 90

## M-T-R:

mtr meaning "testify concerning, exhibit (virtues), charge (tasks), instruct" / "be famous, renowned" / "fame, renown"

## M-T:

mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" / "vessel, duct, muscle" (anatomical) / "dead man, mortal man" mTA meaning "flout, vex"

T-R:
tr meaning "forsooth, pray" / "respect (someone), greet respectfully, worship (god), show respect" / "time, season"
Dataset 4.253.2. Cluster-word matches with Middle Egyptian from KH 90

### 4.254 Artefact KH 91

## P-T:

pVt meaning "cloth"
Dataset 4.254.1. Cluster-word matches with Common Semitic from KH 91

### 4.255 Artefact MA 10b

dVp meaning "push"
P-T:
pVt meaning "cloth"
Dataset 4.255.1. Cluster-word matches with Common Semitic from MA 10b

| D-P: |
| :---: |
| dp meaning "taste (verb), experience" / "Dep (Delta City)" |

Dataset 4.255.2. Cluster-word matches with Middle Egyptian from MA 10b

### 4.256 Artefact MI 2

> D-K:
dīk meaning "rooster" dik(k) meaning "be small", "be thin, fine"
Dataset 4.256.1. Cluster-word matches with Common Semitic from MI 2

### 4.257 Artefact SY Za 1

## T-I:

tī ${ }^{\text {c }}$ meaning "flow", "pour (of rain)"
D-M:
dam meaning "blood"
dVm meaning "wound" / "moan" / "dwell", "last", "stay a long time in one place"
Dataset 4.257.1. Cluster-word matches with Common Semitic from SY Za 1

> A-TA:
> atta meaning "father"

Dataset 4.257.2. Cluster-word matches with Hittite from SY Za 1

A-T:
AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
I-D:
id meaning "boy" / "assault"
D-M:

```
                                    dm meaning "be sharp, sharpen, pierce (sky)"/
    "pronounce, proclaim (name), mention (by name), be renowned (of office)
```

Dataset 4.257.3. Cluster-word matches with Middle Egyptian from SY Za 1

### 4.258 Artefact SY Za 2a

> | T-I: |
| :---: |
| tīc meaning "flow", "pour (of rain)" |
| S-M: |
| šVma ${ }^{\text {c }}$ meaning "hear" |
| M-T: |
| maṭ meaning "stick, branch" |
| mVt meaning "son" |

Dataset 4.258.1. Cluster-word matches with Common Semitic from SY Za 2a

## A-TA:

atta meaning "father"
Dataset 4.258.2. Cluster-word matches with Hittite from SY Za 2a

A-T:
AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
S-M-T:
Smt meaning "mother-in-law"/ "walking, gait, movements, actions, business" smt meaning "hear" / "hammock"

S-M:
smA meaning "kill, destroy" / "priest (who clothed the god)" / "wild bull" /
"scalp, side" / "ramp?" / "partake (of), make ready (a boat)" /
"unite, join (a company), associate (with), arrive (in)" sm meaning "deed, event, affair, pastime' Sma meaning "Upper Egyptian barley" / "make music"

M-T:
mt meaning "die, perish, death" / "bolus, lump, pill" / "strip? (of cloth)" /
"vessel, duct, muscle" (anatomical) / "dead man, mortal man"
Dataset 4.258.3. Cluster-word matches with Middle Egyptian from SY Za 2a

### 4.259 Artefact SY Za 2b

$\mathrm{N}-\mathrm{K}$ :
nVk meaning "pour out"
K-N:
$\mathrm{k} V \mathrm{Vna}^{\circ}$ meaning "kill"
N-S:

Dataset 4.259.1. Cluster-word matches with Common Semitic from SY Za 2b

# N-K: <br> nk meaning "copulate" <br> K-N-S: <br> kns meaning "pubic region?" 

Dataset 4.259.2. Cluster-word matches with Middle Egyptian from SY Za 2b

### 4.260 Artefact SY Za 3

> T-I:
> tī $^{\text {c }}$ meaning "flow", "pour (of rain)"

S-R:
šīr meaning "go" / "sing"
Dataset 4.260.1. Cluster-word matches with Common Semitic from SY Za 3

A-TA:
atta meaning "father"
Dataset 4.260.2. Cluster-word matches with Hittite from SY Za 3

AT meaning "nurse" / "striking - power" / "moment, instant, time (in general)"
S-R:
sr meaning "nobleman, magistrate" / "foretell, make known"
R-T:
rT meaning "now, but"
Dataset 4.260.3. Cluster-word matches with Middle Egyptian from SY Za 3

Overall, whatever possible word matches (obtained from the specified dictionaries) to the innovative segmentation and recombination of clusters have been listed out as individualised datasets in this section. Moving on, the next section will then focus on each individual datasets from this section, to come up with possible translations of each tablet should word-cluster matches within a single artefact make some sense. Explanations involving regional factors of where the artefacts had been uncovered will also be attempted to provide some form of logical reasoning.

## CHAPTER FIVE: POSSIBLE INTERPRETATIONS

Interpretations on the Linear A tablets, using the respective lists of word-cluster matches with the three selected languages, were all based on personal inference. Tablets with word matches that do not seem to provide a rough idea of the overall content of the individual tablets will not be discussed in detail in this section. It is also important to remember that the subsequent discussion of the various tablets are by no means accurate or conclusive. Due to the elusive nature of the underlying language(s) and writing system(s) of Linear A, conjectures, together with logical reasoning, can only be made at this stage.

The tablets discussed below were discovered at Hagia Triada. Hagia Triada was assumed to be an administrative center several kilometers from Phaistos, and located on the west slope of a hill at a height of 30 m to 40 m above sea level. The existence of The Royal Villa (possibly constructed at the end of Middle Minoan IIIB) situated at Hagia Triada, was thought to be either the "summer palace" of the "king" of Phaistos or other important officials, or it may perhaps have been the seat of the local chief. The Royal Villa consisted of apartments, light wells, shrines, magazines, workshops, courts and so on. To the north of the villa was a significant Minoan town and north-east to the town was a burial site, most likely the Minoan tholos tombs, used for collective burial with the inclusion of funerary rooms.

### 5.1 Artefact HT 1

None of the word-cluster matches with Semitic seem to paint a broad picture as to what the contents of the tablets may mean, as the individual words seem to be too generalised. However, in terms of the word-cluster matches with Hittite, the cluster A-RA meaning and one of its word-cluster matches ara meaning "belonging to one's own social group, congruent with social order", seem to provide an idea of a possible hierarchy present in the Minoan town around Hagia Triada, where this tablet was unearthed.
(Refer to dataset 4.1.2)

### 5.2 Artefact HT 2

The cluster K-R and one of its corresponding word-cluster matches with the Semitic word $k \bar{a} r$ meaning "single mountain, hill", seem to coincide with the geography of Hagia Triada, where this tablet was found. Hagia Triada was located on the western slope of a hill, 30 m to 40 m above sea level, and as such, one of the possible contents of this tablet could
likely be about the geographical setting of the place, based on the highlighted word-cluster match. The other word-cluster matches, including those of Hittite and Middle Egyptian, do not seem to provide any other clues as to what the content of tablet HT 2 might have been. (Refer to dataset 4.2.1)

### 5.3 Artefact HT 3

Based on some of the word-cluster matches with Semitic such as din meaning "long rain" (cluster: D-N), mur meaning "go away" or "dig" (cluster: M-R), tūr meaning "turn" or "flow", or tur meaning "run fast", "hurry hasten" (cluster: T-R) and $p V n V$ meaning "side, direction" or pan meaning "face" (cluster: P-N), the content of the tablet may be referring to what happens during an event of long, continuous rain. A personal interpretation based on the abovementioned word-cluster matches could either be animals seeking shelter from the rain by digging into the ground for shelter (based on 'mur'); 'tūr' could be referring to the flow of rainwater down the slope while 'tur' could be referring to running or moving quickly to escape from the rain; ' $p V n V$ ' meaning "side, direction" or 'pan' meaning "face" could be referring to the general area where rain is heavier at or the direction in which the rainaccompanied wind is blowing towards. On the other hand, the S-T word-cluster match with Middle Egyptian ST meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official" seems to be relevant given the fact that the Royal Villa at Hagia Triada may have been the "summer palace" of the "king" of Phaistos or other important officials, or it could have been the seat of the local chief.
(Refer to dataset 4.3.1 and 4.3.3)

### 5.4 Artefact HT 4

Looking solely at the word-cluster matches with Middle Egyptian, the content of the tablet could be referring to something along the lines of either a record of dispelling some sort of evil or illness, or chasing out people or enemies. This hypothesis is made by looking at word-cluster matches like $k A r$ meaning "shrine" (cluster: K-A-R), $A r$ meaning "drive away" (cluster: A-R) and $d r$ meaning "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)" (cluster: D-R). In addition, the Semitic word-cluster match with the D-R cluster, $d V r$ meaning "drive away, make go", has a similar meaning with that of the Middle Egyptian word-cluster match above, and may be significant. (Refer to dataset 4.4.1 and 4.4.3)

### 5.5 Artefact HT 6a

The only word-cluster matches that can be seemingly pieced together to give a brief idea about the content of this tablet are the R-D and D-N clusters with their corresponding matches from Semitic - $r a^{c} d$ meaning "storm, thunder" and dìn meaning "long rain" respectively. With these words, it seems that the content of HT 6a may be about the weather. However, taking into consideration that there is an overlap in the two clusters (R-D and D-N clusters are derived from the string O-R-D-N), it may be unlikely that both word-cluster matches can be used in conjunction to infer this tablet's content.
(Refer to dataset 4.6.1)

### 5.6 Artefact HT 6b

Focusing on the word-cluster matches of the individual languages seem to show no possible related words that can allow for a conjecture of the tablet's content. However, looking across the languages, one of the probable inferences that can be made is that this tablet may have been recording some form of ritual. This is inferred based on the wordcluster matches of Semitic and Middle Egyptian. The word-cluster matches from Semitic that stand out are: $d \bar{u} d$ meaning "vessel, pot, cauldron" (cluster: D-D), dam meaning "blood" (cluster: D-M), and $\check{s} a m \bar{a}{ }^{\top}$ meaning "sky" (cluster: S-M). At the same time, seemingly related words from the Middle Egyptian word-cluster matches are: dn meaning "cut off (heads), kill (someone)" (cluster: D-N), Ts meaning "arrange (rites)" (cluster: T-S), $D d$ meaning "recite (spell)" (cluster: D-D), $d m$ meaning "be sharp, sharpen, pierce (sky)" (cluster: D-M), and $\operatorname{smA}$ meaning "priest (who clothed the god)" (cluster: S-M). These highlighted words can be thought of as ritual-related vocabulary, especially the conduct of rites by priests and the use of sacrifice.
(Refer to dataset 4.7.1 and 4.7.3)

### 5.7 Artefact HT 7a and HT 7b

Although no inference can be made of these two tablets due to the unrelated wordcluster matches, one interesting thing to note is the similarity in the word-cluster matches of Semitic and Middle Egyptian for cluster D-R. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". The similarity of both in referring to driving out something could be significant.
(Refer to dataset 4.8.1, 4.8.2, 4.9.1 and 4.9.2)

### 5.8 Artefact HT 8a

The word-cluster matches of the three selected languages (Semitic, Hittite and Middle Egyptian) for this tablet do not seem to show any relation with one another. However, it is interesting to see that one of the word-cluster matches with Semitic, $k \bar{a} r$ meaning "single mountain, hill" (cluster: K-R), can be linked back to the location of Hagia Triada, which is on a hill.
(Refer to dataset 4.10.1)

### 5.9 Artefact HT 9a

The only word-cluster matches that seem to be related terms and may give a brief idea about the content of this tablet are the S-R and D-N clusters and their corresponding matches with Semitic - šār meaning "wind" and $d \bar{i} n$ meaning "long rain" respectively. With these words, it seems that the content of HT 9a may be about the weather. Additionally, the Hittite word-cluster match, aru meaning "high" (cluster: A-RU), may either be referring to the latitude of Hagia Triada or the increase in water levels due to the continuous downpour. (Refer to dataset 4.12.1 and 4.12.2)

### 5.10 Artefact HT 10a

Narrowing the focus on the word-cluster matches of Middle Egyptian, the content of this tablet could be referring to a priest curing some form of disease. This is inferred based on the word-cluster matches of $s m A$ meaning "priest (who clothed the god)" (cluster: S-M) and $d r$ meaning "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)" (cluster: D-R).
(Refer to dataset 4.14.2)

### 5.11 Artefact HT 11a

It is interesting to note that one of the word-cluster matches with Semitic, $k \bar{a} r$ meaning "single mountain, hill" (cluster: K-R), as well as a word-cluster match with Hittite, aru meaning "high" (cluster: A-RU), can be linked back to the location and latitude of Hagia Triada, which is on a hill.
(Refer to dataset 4.16.1 and 4.16.2)

### 5.12 Artefact HT 16

One of the word-cluster matches from Hittite and Middle Egyptian respectively seem to be related to strategising a plan: kup meaning "plan, premeditate, scheme, plot, conspire, practise deceit" (cluster: KU-PA) and $s p$ meaning "deed, act", "matter, affair, case" or "occasion, chance, venture, success, condition" (cluster: S-P). This may be a possible theme of the Linear A tablet.
(Refer to dataset 4.21.2 and 4.21.3)

### 5.13 Artefact HT 17

As mentioned earlier, the presence of the Royal Villa at Hagia Triada is thought to be the "summer palace" of either the "king" of Phaistos or other important officials, or it could have been the seat of the local chief. With that information, the Middle Egyptian word-cluster match with cluster S-D-R, $s D r$ meaning "department (of the Residence)", seem to stand out and as such, the content of this tablet may be related to administration.
(Refer to dataset 4.22.2)

### 5.14 Artefact HT 19

Focusing solely on the Middle Egyptian word-cluster matches, terms such as $s r$ meaning "nobleman, magistrate" (cluster: S-R), $d m D$ meaning "associate (with), join (someone), unite (lands)" or "assembly, bring together (people)" (cluster: D-M-D), and $d m$ meaning "pronounce, proclaim (name), mention (by name), be renowned (of office)" (cluster: D-M), all seem to paint a picture of a high-ranking person well-known for his political efforts.
(Refer to dataset 4.24.2)

### 5.15 Artefact HT 21

There seem to be no particular relation in terms of all the word-cluster matches available for this tablet. However, it is interesting to point out that the Semitic word-cluster match with the K-S cluster, $k V \hat{s}$, and the Middle Egyptian word-cluster match with the T-K-S cluster, $t k s$, both have the same meaning of "pierce". Thus, it raises the possibility of the content of this tablet in having something to do with the action of piercing.
(Refer to dataset 4.26.1 and 4.26.2)

### 5.16 Artefact HT 25a

There are two interpretations which can be made based on word-cluster matches with Middle Egyptian. The first interpretation with the words, rwi meaning "go away, depart, pass away" (cluster: R-W), and Drw meaning "boundary, end, limit" (cluster: D-R-W), could be referring to the end of life. Alternatively, rwi meaning "advance against", "leave (a place)", or "expel / drive off / remove (someone, something), escape (harm)" (cluster: R-W), in combination with $d r$ meaning "subdue (enemies), expel, drive out (people, illness)" (cluster: D-R), could be referring to driving away enemies who may had invaded the area. (Refer to dataset 4.30.2)

### 5.17 Artefact HT 27a

There are some seemingly related words from the word-cluster matches of Semitic and Middle Egyptian, which are tin meaning "fig tree" or ṭin meaning "clay, earth, dirt" in Semitic (cluster: T-N), srd meaning "make grow, plant (trees)" in Middle Egyptian (cluster: S-R-D) and $r d$ meaning "grow" or "shoot (of tree)" in Middle Egyptian (cluster RD). These words clearly point out to the growth of trees, for instance fig trees.
(Refer to dataset 4.34.1 and 4.34.3)

### 5.18 Artefact HT 28a

Although it may seem slightly farfetched, word-cluster matches with Semitic $d \bar{a} r$ meaning "dwelling", "house", "granary" (cluster: D-R) and Middle Egyptian it meaning "barley, corn" (cluster: I-T) could be describing a storage place for produce like barley and corn.
(Refer to dataset 4.36.1 and 4.36.3)

### 5.19 Artefact HT 28b

Although there are no word-cluster matches that stand out due to their potential relation, the D-N cluster has word-cluster matches with both Semitic and Middle Egyptian, with the respective matches possessing a similar meaning. One of the meanings of Semitic $d V n$ and Middle Egyptian $d n$ mean "cut off", making it noteworthy. The words matching with the same cluster may also be due to the fact that both languages belong to the same family. (Refer to dataset 4.37.1 and 4.37.3)

### 5.20 Artefact HT 29

There are several words across matches with Semitic and Middle Egyptian that can potentially be pieced together to form a probable explanation of this tablet's content. Wordcluster matches with Semitic, that of $k V t$ meaning "weak" (cluster: K-T) and $d V m$ meaning "wound", as well as Middle Egyptian mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (cluster: M-N), allows one to imagine the content of this tablet to be related to some form of injury.
(Refer to dataset 4.38.1 and 4.38.3)

### 5.21 Artefact HT 31

Looking solely at word-cluster matches with Semitic, $p V k V$, meaning "split, break, wound" (cluster: P-K), and $d V m$, meaning "wound" (cluster: D-M), are terms relating to injury. On the other hand, the Middle Egyptian word-cluster matches, Ts meaning "join, rejoin, knit together (bones), form (unborn bodies), unite (Two Lands)" or "tie (knot), tie on (fillet), weave (cloth)" (cluster: T-S) and $d m A$ meaning "bind together" (cluster: D-M), are words relating to connecting or creating something. (Refer to dataset 4.40.1 and 4.40.3)

### 5.22 Artefact HT 35

Although there are no seemingly related words derived from the respective wordcluster matches, the cluster T-T has matches with both Semitic and Middle Egyptian, including a similar meaning of "trample". For Semitic, $t V^{c}-\underline{t} V^{c}$ means "trample while for Middle Egyptian, titi means "trample on (foe)". Due to their commonality, it may be a possible theme of tablet HT 35.
(Refer to dataset 4.44.1 and 4.44.2)

### 5.23 Artefact HT 37

The word-cluster match with Hittite, anna (cluster: A-NA) meaning "mother" and the word-cluster match with Middle Egyptian, $k k$ (cluster: K-K) meaning "be dark (of child about to be born)" may allow the inference of the content of this tablet to be relating to childbirth. (Refer to dataset 4.45.2 and 4.45.3)

### 5.24 Artefact HT 39

Word-cluster matches with Middle Egyptian relating to death are observed for this tablet. This can be seen from $s m A$, meaning "kill, destroy" (cluster: S-M), and $m t$, meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T).
(Refer to dataset 4.47.2)

### 5.25 Artefact HT 49a

Among all the word-cluster matches for the clusters derived from this tablet, $\mathrm{ra}^{\mathrm{c}} \mathrm{d}$ meaning "storm, thunder" (Semitic, cluster: R-D), ski meaning "destroy" or sk meaning "wipe, wipe out, wipe away" (Middle Egyptian, cluster: S-K), and dni meaning "dam (water), construct (dam)" (Middle Egyptian, cluster: D-N), can be interpreted as the occurrence of a heavy storm having destroyed crops or certain infrastructure, as well as the construction of a dam to hold water back, especially in the event of a heavy rainfall.
(Refer to dataset 4.54.1 and 4.54.3)

### 5.26 Artefact HT 58

There are two word matches, one from Semitic and another from Middle Egyptian, which are related words, which can allow a prediction on the content of this tablet. Through the Semitic word, $r a^{c} d$, meaning "storm, thunder" (cluster: R-D), and the Middle Egyptian word, $t r$, meaning "time, season" (cluster: T-R), one inference which can be made is that this tablet may be recording something relating to the weather.
(Refer to dataset 4.62.1 and 4.62.2)

### 5.27 Artefact HT 75

As mentioned above (in Artefact HT 8a), it is interesting to note that one of the wordcluster matches with Semitic, $k$ ār meaning "single mountain, hill" (cluster: K-R), can be linked back to the location of Hagia Triada, which is on a hill.
(Refer to dataset 4.70.1)

### 5.28 Artefact HT 86a

There are word-cluster matches with Semitic, Hittite and Middle Egyptian that stand out due to their closeness in lexical relation. dam meaning "blood" or $d V m$ meaning "wound" (Semitic, cluster: D-M); ak meaning "die; be killed; be legally executed" (Hittite, cluster: AKA); sāru meaning "raging ailment, hectic, inflammation" (Hittite, cluster: SA-RU); $d r$
meaning "drive out (people, illness)" (Middle Egyptian, cluster: D-R); mnt meaning "malady, what is harmful, suffering" (Middle Egyptian, cluster: M-N-T); mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (Middle Egyptian, cluster: M-N). These are all terms relating to illness, injury and even death, which could be pointing to what this tablet's contents may be about.
(Refer to dataset 4.75.1, 4.75.2 and 4.75.3)

### 5.29 Artefact HT 87

With a focus on the word-cluster matches with Semitic, one can note terms like kari ${ }^{\mathrm{D}}$ meaning "kind of bird (cluster: K-R), $d \bar{l} k$ meaning "rooster" (cluster: $\mathrm{D}-\mathrm{K}$ ), $s V p V$ meaning "falcon" (cluster: S-P), kurk meaning "crane" (cluster: K-R-K). With these terms, one may make an assumption that the tablet could be a record of the species of birds.
(Refer to dataset 4.76.1)

### 5.30 Artefact HT 88

It is uncertain if this tablet could have been referring to the process of storing cereal, but there are word-cluster matches with Semitic which seems to paint such a picture. The words include kin meaning "cereal" (cluster: K-N), kupp meaning "box", "basket" (cluster: K-P-P), pVn meaning "turn" (cluster: P-N), šamāa meaning "sky" (cluster: S-M) and possibly even $t V r V^{3}$ meaning "lift" (cluster: T-R). From these terms, one assumption that can be made is the processing of drying the cereal outdoors before transferring and storing them in a box or basket.
(Refer to dataset 4.77.1)

### 5.31 Artefact HT 89

Some notable word-cluster matches include ${ }^{c} a s ̣ r$ meaning "time, age" from Semitic (cluster: A-S-R), mai meaning "grow, increase, thrive, mature, ripen, reach term, be born" from Hittite (cluster: MA-I) and tr meaning "time, season" from Middle Egyptian (cluster: TR). These terms and definitions can be considered to be part of the crop cultivation, or even fermentation, vocabulary.
(Refer to dataset 4.78.1, 4.78.2 and 4.78.3)

### 5.32 Artefact HT 93a

With word-cluster matches from Semitic such as dir meaning "drip", "flow abundantly" (cluster: D-R), dīn meaning "long rain" (cluster: D-N) and šār meaning "wind" (cluster: S-R), this table may be referring to the amount of water present in rivers and such due to the long rain. Furthermore, the presence of one of the Middle Egyptian word-cluster match, dni meaning "dam (water), construct (dam)" (cluster: D-N) can be considered as an extra support to this theory.
(Refer to dataset 4.82.1 and 4.82.3)

### 5.33 Artefact HT 94b

Word-cluster matches across Semitic, Hittite and Middle Egyptian seem to be linked to injuries, or suffering in general. The word-cluster matches $d V m$, meaning "wound" or "moan" (cluster: D-M), sāru, meaning "raging ailment, hectic, inflammation" (cluster: SARU), and $m t$, meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T), of Semitic, Hittite and Middle Egyptian respectively, highlight this potential phenomenon. (Refer to dataset 4.84.1, 4.84.2 and 4.84.3)

### 5.34 Artefacts HT 95a and HT 95b

Similar to HT 94b above, Semitic $d V m$ meaning "wound" or "moan", and dam meaning "blood" (cluster: D-M); Hittite sāru meaning "raging ailment, hectic, inflammation" (cluster: SA-RU); Middle Egyptian $m t$ meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T), mnt meaning "malady, what is harmful, suffering" (cluster: M-N-T) and $m n$ meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (cluster: M-N), are all terms relating to injuries or suffering in general. Furthermore, there are additional word-cluster matches with Middle Egyptian such as Dd meaning "recite (spell)" (cluster: D-D) and $d r$ meaning "remove (need, evil)" or "expel, drive out (people, illness)" (cluster: D-R) adds on to the possibility of this tablet representing a method or ritual to get rid of the abovementioned illness or suffering.
(Refer to dataset 4.85.1, 4.85.2, 4.85.3, 4.86.1, 4.86 .2 and 4.86.3)

### 5.35 Artefact HT 97a

As mentioned several times above, one of the word-cluster matches with Semitic, $k \bar{a} r$ meaning "single mountain, hill" (cluster: K-R), could be referring to the location of Hagia Triada, which is situated on a hill.

### 5.36 Artefacts HT 98a and HT 98b

It is interesting to note that the cluster D-R and its respective word-cluster matches with Semitic and Middle Egyptian, possess similar meanings. In Semitic, $d V r$ can mean "drive away, make go" while in Middle Egyptian, $d r$ can mean "subdue (enemies), expel, drive out (people, illness)". This may be a possible topic of the tablet. It also makes one wonder if language contact could have played a part, and as such brings us back to the key issue of this paper - if Linear A vocabulary has been influenced by the other languages of its time.
(Refer to dataset 4.91.1, 4.91.2, 4.92.1 and 4.92.2)

### 5.37 Artefact HT 102

The word-cluster matches of Semitic $d V r$ meaning "drive away, make go" (cluster: DR), Hittite maz meaning "meet by force, stand up, confront, brave, challenge; match, measure up to" (cluster: MA-ZU) and Middle Egyptian $d r$ meaning "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)" (cluster: D-R), makes own contemplate if what was written on this tablet was related to confronting and chasing the enemies of the Minoans away.
(Refer to dataset 4.97.1, 4.97.2 and 4.97.3)

### 5.38 Artefact HT 103

With word-cluster matches with Semitic such as $k u s$ meaning "cut" or $k V \hat{S}$ meaning "pierce" (cluster: K-S), $k V n a^{p}$ meaning "kill" (cluster: K-N) and $k V r a^{c}$ meaning "strike (with a stick)" (cluster: K-R), a potential content of this tablet could be regarding methods of killing something, perhaps livestock. Additionally, the P-D word-cluster match with Middle Egyptian $p D$, meaning "draw (bow)" could be linked to the piercing of the arrow, mentioned above, with Semitic $k V \hat{s}$ meaning "pierce".
(Refer to dataset 4.98.1)

### 5.39 Artefact HT 104

Focusing solely on Middle Egyptian, there are several word-cluster matches that allow for some form of connection. $t p$ meaning "head, headman, chief" (cluster: T-P), tr meaning "respect (someone), greet respectfully, worship (god), show respect" (cluster: T-R),
$s n$ meaning "brother" or "husband" (cluster: S-N), $D T$ meaning "serf" or "bodily form (of god, statues)" (cluster: D-T) and st meaning "position, rank of official" (cluster: S-T) - these lexicon could allow for an interpretation of being respectful to gods and their statues, as well as to someone of a higher rank or status.
(Refer to dataset 4.99.2)

### 5.40 Artefact HT 117a

One interpretation of the content of this tablet, based on the word-cluster matches, could be regarding diseases and pain. Semitic $d V m$ meaning "wound" or "moan" and dam meaning "blood" (cluster: D-M), kVt meaning "weak" (cluster: K-T); Middle Egyptian mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (cluster: M-N), $m t$ meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T), $m r t$ meaning "pains" (cluster: M-R-T), $m R$ meaning "pain, ailment", "sick, ill, diseased, painful" or "sick man" (cluster: M-R), are all terms relating to injuries or suffering in general. Moreover, there is the additional word-cluster match with Middle Egyptian of $d r$, meaning "remove (need, evil)" or "expel, drive out (people, illness)" (cluster: D-R), which could be a further description on curing the abovementioned illness or suffering.

Another interpretation can be made through word-cluster matches with Middle Egyptian alone. Word matches like $m R$ meaning "partisan, supporter" (cluster: M-R), $d m$ meaning "pronounce, proclaim (name), mention (by name), be renowned (of office)" (cluster: D-M), $m r t$ meaning "weavers, servants, underlings" (cluster: M-R-T), tr meaning "pray" or "respect (someone), greet respectfully, worship (god), show respect" (cluster: T-R), $n D$ meaning "confer (office on), appoint (someone)", "take counsel, ask advice, consult, enquire about", "save, protect" or "protection" (cluster: N-D), st meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official" (cluster: S-T), ksi meaning "bend down, bow down, be prostrate" (cluster: K-S-I), are all words showing reliance or reverence to either someone of a higher status and power, or a higher being.
(Refer to dataset 4.113.1 and 4.113.3)

### 5.41 Artefact HT 118

Although largely hypothetical, the word-cluster matches with Middle Egyptian like rs meaning "wake, be watchful, vigilant" (cluster: R-S) and $r r$ meaning "time" (cluster: R-R)
could be referring to instructions or advice on being alert at a particular time, possibly for the sake of safety.
(Refer to dataset 4.115.2)

### 5.42 Artefact HT 122a

Word-cluster matches with Semitic such as $d V r$ meaning "drive away, make go" (cluster: D-R), $k V p a^{\text {P }}$ meaning "go away" (cluster: K-P), kud meaning "work (hard), be tired" (cluster: K-D) and word-cluster matches with Middle Egyptian such as $d r$ meaning "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)" (cluster: D-R), $s D$ meaning "break, break into, invade, breach (wall), break open (way)" (cluster: S-D), and $p D$ meaning "extend (oneself in effort)" (cluster: P-D), could all be referring to efforts exerted in order to drive out an enemy invasion.
(Refer to dataset 4.119.1 and 4.119.3)

### 5.43 Artefact HT 123a

Focusing on word-cluster matches with Semitic, words like $k V \mathrm{t}$, meaning "be massive" (cluster: K-T), $t \tau^{c}$ meaning "flow", "pour (of rain)" (cluster: T-I) and šār, meaning "wind" (cluster: S-R), could be a description of a huge downpour accompanied by strong winds.
(Refer to dataset 4.121.1)

### 5.44 Artefact HT 123b

Semitic word-cluster matches like $d V \underline{t}$ meaning "beat, push" (cluster: D-T), tup meaning "spit blood" (cluster: T-P), $k V n a^{\circ}$ meaning "kill" (cluster: K-N), $d V m$ meaning "wound" (cluster: D-M), as well as Middle Egyptian $s D$ meaning "inflict (wound), fracture" (cluster: S-D) and $d m A$ meaning "cut off (heads)" (cluster: D-M), all are vocabulary terms relating to inflicting injuries, be it superficial or fatal. On the other hand, narrowing the focus on Semitic word-cluster matches highlight words like $p V s$ meaning "destroy, break" (cluster: $\mathrm{P}-\mathrm{S}$ ), $\mathrm{kVna}{ }^{\circ}$ meaning "kill" (cluster: K-N), and dum meaning "destroy" (cluster: D-M), in which these words are related to destruction.
(Refer to dataset 4.122.1 and 4.122.3)

### 5.45 Artefact 128a

Although there are no related keywords that seem to stand out noticeably, the presence of word-cluster matches with Semitic such as mar meaning "healthy, strong" (cluster: M-R) and $m V \underline{t}$ meaning "son" (cluster: M-T), could be referring to a healthy and strong son. As for word-cluster matches with Middle Egyptian, word matches like tm meaning "perish, cease" (cluster: T-M) and $m t$ meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T), seem to showcase mortality.
(Refer to dataset 4.126.2 and 4.126.3)

### 5.46 Artefact HT 135a

There are two word-cluster matches with Middle Egyptian that show relation with one another: $m n$ meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (cluster: M-N), and $m t$ meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T). These two terms highlight death and ailments, and may be a possible content of this tablet.
(Refer to dataset 4.132.2)

### 5.47 Artefact HT 146

It is interesting to observe two word-cluster matches with Semitic which are similar in meaning: rik meaning "be thin, be weak" (cluster: $\mathrm{R}-\mathrm{K}$ ) and $k V t$ meaning "weak" (cluster: KT). This could be a plausible topic of tablet HT 146.
(Refer to dataset 4.137.1)

The next tablet discussed was obtained from Knossos. Knossos was the capital of king Minos (palace of Knossos) in ancient Crete and the main centre of the Minoan civilisation. The site of Knossos stands on a knoll between the confluence of two streams and is located about 8 km inland with respect to Crete's northern coast.

### 5.48 Artefact KN 1b

Just like tablets HT 7a, 7b and 102 (mentioned above), there is a similarity in the word-cluster matches of Semitic and Middle Egyptian for cluster D-R. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". They both refer to driving out something, and may be a possible theme of the tablet.

The next few tablets were obtained from Malia, a coastal town located 35 km from the north-eastern corner of Heraklion in Crete, and located by the outskirts of Mount Selena. Malia means 'flat area', and its name was so as it was situated on a fertile plain.

### 5.49 Artefact MA 1a

Some word-cluster matches with Middle Egyptian may allow for an interpretation of this tablet. The combination of the terms $i d w$ meaning "pestilence" (cluster: I-D-W) and $m n$ meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (cluster: M-N). allow for an assumption of this tablet's content, which may be a record of a disease plaguing the area. In addition, if the Semitic word-cluster match with the D-M cluster, $d m$, meaning "dwell', "last", "stay a long time in one place" were to be included, one can further interpret it to be a long duration of the plague.
(Refer to dataset 4.146.1 and 4.146.3)

### 5.50 Artefact MA 1b

MA 1b, on the other hand, has two word-cluster matches with Middle Egyptian that may result in one possible interpretation of the tablet being that of the illness of fever. The two words are: Am meaning "burn up" (cluster: A-M) and $m n$ meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body), be troubled about" or "sick man" (cluster: M-N). (Refer to dataset 4.147.3)

### 5.51 Artefact MA 2a

Just like several other tablets mentioned earlier, the similarity in the word-cluster matches of Semitic and Middle Egyptian for cluster D-R is noteworthy. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". These two terms both refer to driving out something, and may be a recurring theme. (Refer to dataset 4.148.1 and 4.148.2)

The next tablet originated from Palaikastro, a major Minoan town found at the east end of Crete, considered to be one of the largest areas of settlements of the island. One of the more renowned myths states that Zeus was born in a cave on Mount Petsophas in Crete. As
such, this cave was religious in nature. The largest and most impressive cave is the Psychro Cave, also known as the Diktaian Cave, situated within the Lasithi Mountains overlooking the Lasithi Plain at eastern Crete. Many important religious objects of the Minoan and ancient Greek times have been found there.

### 5.52 Artefact PK 1

Although there are a significant number of word-cluster matches with Semitic and Middle Egyptian for the reconstructed clusters of this tablet, the amount of related terms seem to be on the low side. Looking solely at the Semitic matches, there are two terms that could possibly allow for an interpretation of this tablet's content. The Semitic words are $t \bar{u} \hat{s} \hat{s}$ meaning "fly", "jump up" (cluster: T-S) and tīz meaning "pierce and tremble (of arrow)" (cluster: T-Z). With these words, one may interpret the content to be describing a hunt, where the arrow shot out by the hunter could have startled the prey in mind.

On the other hand, a different interpretation of the tablet could be made with some of the Middle Egyptian word matches. $\operatorname{tr}$ meaning "forsooth, pray" or "respect (someone), greet respectfully, worship (god), show respect" (cluster: T-R); tit meaning "image, form, shape, figure, design" (cluster: T-T); Ts meaning "arrange (rites)" (cluster: T-S) - these terms allow one to imagine the possibility of an interpretation such as performing a ritual, praying or showing respect to representation(s) of deities. Additionally, there are other Middle Egyptian terms that show lexical relation and may give rise to an alternate interpretation. nm meaning "go wrong (of plans), rob (with), steal (with)" (cluster: N-M); $k A i$ meaning "think about, plan" (cluster: K-I); iTA meaning "steal" or "thief" (cluster: I-T) can also allow one to imagine the content of this tablet being about either a failed plan or the act of theft. (Refer to dataset 4.150.1 and 4.150.2)

The following few tablets discussed were obtained from Phaistos. Ancient Phaistos was located about 5.6 km east of the Mediterranean sea and 62 km south of Heraklion, which was the second largest city of Minoan Crete.

### 5.53 Artefact PH 1a

Word-cluster matches with Semitic such as dir meaning "drip", "flow abundantly" (cluster: D-R), $r a^{c} d$ meaning "storm, thunder" (cluster: R-D) and dīn meaning "long rain" (cluster: D-N) allow for a possible interpretation of this tablet as being related to a heavy
downpour resulting in increased amounts of water in water bodies. On the other hand, wordcluster matches with Middle Egyptian such as $\operatorname{DrD}$ meaning "leaf" (cluster: D-R-D) and $r d$ meaning "grow" or "shoot (of tree)" (cluster: R-D), shows a possibility of a record relating to plants.
(Refer to dataset 4.152.1 and 4.152.2)

### 5.54 Artefact PH 2

Based on the word-cluster matches with Middle Egyptian, one interpretation of the tablet can be made through the word-cluster matches Ast meaning "Isis (goddess, divinity)" (cluster: A-S-T), Ssp meaning "statue, image" (cluster: S-S-P), $s$ SA meaning "prayer" or "pray (to)" (cluster: S-S), and $s p$ meaning "flow out, depart (of morbid fluid, evil spirit)" (cluster: S-P). The goddess, Isis, is known for healing, protection and magic. As such, one possible interpretation could be that of general devotion and prayer to the goddess (spiritually or to an image of her), or it could even be a specific prayer for her to protect and expel "morbid fluid or evil spirit" out of a person.
(Refer to dataset 4.153.3)

### 5.55 Artefact PH 6

In Hittite, one of the word-cluster matches for cluster PA-I is pai meaning "give, pay, offer, furnish, consign, render". Furthermore, one of the I-N-W word-cluster matches with Middle Egyptian is inw meaning "tribute (of subject lands), gifts (from palace), dues (to be paid)". Together with the Middle Egyptian word-cluster match $s r$, meaning "nobleman, magistrate" (cluster: S-R), there is a possibility that the tablet may have mentioned the act of offering tributes or gifts, by a nobleman or magistrate.
(Refer to dataset 4.155.2 and 4.155.3)

### 5.56 Artefact PH 7b

(Repeated) Just like several other tablets mentioned earlier, the similarity in the wordcluster matches of Semitic and Middle Egyptian for cluster D-R is noteworthy. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". These two terms both refer to driving out something, and may be a recurrent theme. (Refer to dataset 4.157.1 and 4.157.2)

### 5.57 Artefact PH(?) 31b

Two interpretations can be made through two sets of word-cluster matches with Middle Egyptian. Terms in the first set include $r m$ meaning "fish" (cluster: R-M) and $m D$ meaning "deep" (cluster: M-D). Using the first set of words, it can be suggested that the tablet may be referring to catching fish in deep waters. On the other hand, terms in the second set include $m t$ meaning "die, perish, death" (cluster: M-T) and Am meaning "burn, burn up" (cluster: A-M). The second set of words allow for a possible conjecture that the tablet's content may be about death resulting from fire.
(Refer to dataset 4.164.2)

The next two tablets discussed were found in Tylissos, a town located in Heraklion, Crete. Tylissos prospered during the Minoan times since it had an advantageous geographical location - there were roads leading from Knossos to western Crete, as well as to Mount Ida. It was one of Minoan Crete's top cities and maintained close relations with Knossos. The discovery of assorted prestigious objects such as bronze figurines of worshippers, an obsidian Rhyton, seal stones and so on, gives the impression of a city which possessed high living standards. A religious center was also said to have been developed at Tylissos. The remains of this city indicated the existence of Minoan villas with stone walls and features like a water cistern and an aqueduct. Olive trees may have been grown there as well.

### 5.58 Artefact TY 3a

There are two word-cluster matches with Middle Egyptian that have closely related meanings pertaining to the act of being aggressive. The first word is $A d$ meaning "be savage, be aggressive, be angry, attack, anger" (cluster: A-D), while the other is $A d w$ meaning "aggressor" (cluster: A-D-W).

In addition, given the fact that Tylissos, where this tablet was unearthed, was one of the prime Minoan cities with high standards of living, it makes one wonder if the A-KU word-cluster match with Hittite, aku, meaning "stone", could have been referring to precious stone imports via trade (mentioned in the first chapter of this paper).
(Refer to dataset 4.167.2 and 4.167.3)

### 5.59 Artefact TY 3b

There are two sets of Semitic word-cluster matches with closely related meanings respectively. The first set involve the words $\underset{V V r i s}{ }$ (cluster: $\mathrm{K}-\mathrm{R}-\mathrm{S}$ ) and $p V k V$ (cluster: $\mathrm{P}-\mathrm{K}$ ) $\underline{k} V$ riśs means "cut into pieces" while $p V k V$ means "split, break". As can be seen, the similarity between the two words is that they both refer to the action of dividing something into more than one piece. The other set involve the words $k V r$ (cluster: K-R) and $k u z$ (cluster: K-Z) the first meaning "drying" and the second meaning "be dry". These similarities are thus brought up as they are interesting and could be possible topics of the tablet.
(Refer to dataset 4.168.1)

### 5.60 Artefact GO Wc 1a

The word-cluster matches with Middle Egyptian As meaning "hurry, flow fast, hasten, overtake" (cluster: A-S) and is meaning "go! (imperative)" (cluster: I-S) both refer to the action of quickly moving, although it is difficult to guess what the content of this rondel may have been.
(Refer to dataset 4.170.3)

The following few tablets in discussion were from Arkhanes, a former municipality also found in Heraklion, Crete. The unearthing of ancient roads leading from Arkhanes to Iouktas (a religious mountain in Crete), Anemospilia (an ancient Minoan temple), and Vathypetro (a Minoan complex possibly involved in the creation of wine) showed that Arkhanes was an essential hub of the Minoan civilisation. During the Minoan times, aqueducts delivered water from spring water sources in Arkhanes to Kephala Hill.

### 5.61 Artefact ARKH 2

In terms of word-cluster matches with Middle Egyptian, there are several word matches that can be pieced together to make some sense of the tablet. In this case, terms like As meaning "a type of cake, bread" (cluster: A-S), $d q$ meaning "flour, powder" (cluster: DQ), and maybe even $s D t$ meaning "fire, flame" (cluster: S-D-T), could be referring to the baking of a certain type of cake or bread using flour, over a fire.
(Refer to dataset 4.173.3)

### 5.62 Artefact ARKH 4a

The two related terms in the word-cluster matches with Semitic, $p V \underline{\underline{t}}$ meaning "cloth" (cluster: P-T) and $t V n V$ meaning "weave", "tie, plait" (cluster: T-N), allow for a possibility that the content of this tablet is regarding textile production, since Minoan Crete was also involved in textile trade.
(Refer to dataset 4.175.1)

### 5.63 Artefact ARKH 4b

Looking across word-cluster matches with Hittite and Middle Egyptian, Hittite ak meaning "die; be killed; be legally executed" (cluster: A-KI) and Middle Egyptian dm meaning "be sharp, sharpen" (cluster: D-M), makes one wonder if the record in this tablet could be regarding the sharpening of a weapon to be used during an execution. (Refer to dataset 4.176.2 and 4.176.3)

### 5.64 Artefact ARKH 5 and ARKH 6

Both tablets contain the reconstructed cluster D-N in which its word-cluster matches with both Semitic and Middle Egyptian have one similar meaning: $d V n$ in Semitic can mean "cut off" while $d n$ in Middle Egyptian can also mean "cut off (heads)". This makes for an interesting observation and could be a possible topic of the tablets.
(Refer to dataset 4.177.1, 4.177.2, 4.178.1 and 4.178.2)

The subsequent tablets under discussion were found from Khania, better known as Chania. It was a Minoan town and a major palace was located there, making it a palatial city. It also produced the second largest quantity of Linear A tablets. Many notable features in the architecture from various palaces were also observed in the palace here. In addition, there were several ceremonial and cult areas in Khania. Some of the most important sites of this city was found on a hill called Kastelli, situated at the front of the harbour front.

### 5.65 Artefact KH 5

Out of all the word-cluster matches with Semitic, Hittite and Middle Egyptian, it is mainly the matches with Middle Egyptian words that calls for attention. Middle Egyptian word-cluster matches such as ksi meaning "bend down, bow down, be prostrate" (cluster: KS), $s S A$ meaning "prayer" or "pray (to)" (cluster: S-S) and $n D$ meaning "save, protect, guard against (magic), make good (harm), protection, protector" (cluster: N-D), together with

Hittite sasā meaning "ornithomantic bird" (cluster: SA-SA), can allow for a possible inference that this tablet may be recording the use of birds for divination, as well as a prayer to the gods for protection. Alternatively, Hittite sasa meaning "goat" (cluster: SA-SA) and Middle Egyptian $a D$ (cluster: A-D) or $w S A$ (cluster: W-S) meaning "fatten" may allow for a slightly different interpretation of fattening up a goat to be used as sacrifice during a prayer or ritual for protection.
(Refer to dataset 4.180.2 and 4.180.3)

### 5.66 Artefact KH 6

Focusing on word-cluster matches with Semitic, there are two word-cluster matches that can be called to attention. One of them is kišan meaning "bean" (cluster: K-S-N), while the other is $p V \hat{s}$ meaning "spread", "scatter" or "distribute" (cluster: P-S). With these two terms, multiple possible interpretations can be made. The first is the action of spreading out or scattering beans on a field for sprouts, while another is simply distributing beans to the various households in the city. The last is the act of scattering beans to drive away evil, however, it is so far only known to be part of a Japanese tradition.
(Refer to dataset 4.181.1)

### 5.67 Artefact KH 9

An interesting observation can be noted from the word-cluster matches with Middle Egyptian. Ssp meaning "white, bright" or "dawn, light" or $s S p$ meaning "be white, be bright" or "make bright, lighten (darkness)" (cluster: S-S-P), and is meaning "lie light (on)" (cluster: I-S) are two different clusters with similar meaning among their word-cluster matches. Other word-cluster matches like As meaning "hurry, hasten" (cluster: A-S), $s S$ meaning "writing, depiction, record, papyrus roll, letter, document" (cluster: S-S), $s p$ meaning "matter, affair, case" (cluster: S-P) and is meaning "go! (imperative)" (cluster: I-S), could allow for a different interpretation of recording a situation and delivering the letter to the recipient at the fastest speed possible.
(Refer to dataset 4.184.3)

### 5.68 Artefact KH 20

Two word-cluster matches with Middle Egyptian possess similar meanings: ski meaning "destroy" or "perish" (cluster: S-K) and $d r$ meaning "remove (need, evil), repress
(wrongdoer), destroy (places)" (cluster: D-R). Together, they emphasise on the destruction of both the tangible and intangible.
(Refer to dataset 4.190.3)

### 5.69 Artefact KH 59

Also mentioned earlier is the observation that the reconstructed cluster D-N and its word-cluster matches with both Semitic and Middle Egyptian have one similar meaning: $d V n$ in Semitic can mean "cut off" while $d n$ in Middle Egyptian can also mean "cut off (heads)". (Refer to dataset 4.200.1 and 4.200.2)

### 5.70 Artefact KH 83

This is similar to artefact KH 59 right above.
(Refer to dataset 4.204.1 and 4.204.2)

Zakros is the place of discovery of the next number of tablets discussed. It was a town situated on the eastern coast of Crete. It is believed to have been one of the four main administrative centers of the Minoans, with its sheltered harbour and advantageous location making it a key trading hub with the east. The town was also ruled by the Palace of Zakro. Zakros consisted of two sections; the higher location was found on the hillside, while the lower one was close to the sea. A ravine known as the "Ravine of the Dead" ran across the upper and lower parts, and was termed as such due to the many burial sites found within the caves, along the walls.

### 5.71 Artefact ZA 4a

First, word-cluster matches with Semitic such as ${ }^{~}{ }^{\text {in }}$ meaning "spread (of water)" (cluster: I-N) and šīp meaning "bank, coast" (cluster: S-P), allows one to speculate if the content of this tablet has anything to do with flooding. This is especially so as Zakros, where this tablet was found, consists of an area by the harbour.

Aside from that, word-cluster matches with Middle Egyptian such as $t r$ meaning "respect (someone), greet respectfully, worship (god), show respect" (cluster: T-R), ms meaning "bring, present" (cluster: M-S), qs meaning "bone" (cluster: Q-S) and inm meaning "skin (of man/animal)" (cluster: I-N-M), are terms that allow for two possible interpretation of the tablet. The first interpretation is that of emissaries or traders presenting gifts to the
palace as tribute. The other is the use of items like bones and skin during a ritual prayer to the gods.
(Refer to dataset 4.206.1 and 4.206.2)

### 5.72 Artefact ZA 5b

Similar to tablet ZA 4a above, word-cluster matches with Semitic such as ${ }^{\circ}$ in meaning "spread (of water)" (cluster: I-N) and šīp meaning "bank, coast" (cluster: S-P), allows one to contemplate the possibility of the content of this tablet to be related to floods. This is due to the fact that Zakros, where this tablet was uncovered, consists of an area by the harbour. (Refer to dataset 4.208.1)

### 5.73 Artefact ZA 8

From the word-cluster matches with Semitic, the terms kūt meaning "feed" (cluster: K-T) and $\bar{a} r$ meaning "greens, vegetables" (cluster: A-R) could be referring to supplementing one with vegetables. Alternatively, the terms $t \bar{\imath}$ meaning "flow", "pour (of rain)" (cluster: T-I) and ${ }^{\circ}$ in meaning "spread (of water)" (cluster: I-N) could be referring to some form of flooding caused by the rain.

Middle Egyptian word-cluster matches such as $t k r$ meaning "opponent" (cluster: T-KR ), $n m$ meaning "go wrong (of plans)" (cluster: N-M) and $k A i$ meaning "think about, plan" (cluster: K-I) could be terms regarding coming up with plans, should one fail to defeat an opponent.
(Refer to dataset 4.213.1 and 4.213.3)

### 5.74 Artefact ZA 9

Through word-cluster matches with Middle Egyptian such as $A T$ meaning "nurse" (cluster: A-T), $r$ rmt meaning "mandrake" (cluster: R-R-M-T) and $m t$ meaning "die, perish, death" (cluster: M-T), one possible inference of this tablet is the use of mandrake, the root of a plant known for its magical powers and thus used as medicine, to prevent death and possibly to nurse someone back to health.
(Refer to dataset 4.214.3)

### 5.75 Artefact ZA 10a

Just like tablet ARKH 4a above, there are two related terms in the word-cluster matches with Semitic allowing for a conjecture of this tablet's content. pVt meaning "cloth" (cluster: P-T) and $t V n V$ meaning "weave", "tie, plait" (cluster: T-N), allow for a possibility that the content of this tablet is regarding textile production, since Minoan Crete was also involved in textile trade.

On the other hand, word-cluster matches with Middle Egyptian mn meaning "be ill, suffer, be ill of, suffer from, suffer in (part of body)" (cluster: M-N) and Am meaning "burn, burn up" (cluster: A-M), together with Semitic $d i^{\text {p }}$ meaning "sickness" (cluster: D-I), can be taken to assume that another possible content of this tablet is regarding the illness of having a fever.

Alternatively, other word-cluster matches with Middle Egyptian such as Tnt meaning "difference (between x and y )" (cluster: T-N-T), km meaning "completion, profit, duty" or "total up, amount to, complete, put an end to, pay (to)" (cluster: K-M), ipt meaning "census" (cluster: I-P-T) and $i p$ meaning "accounting, estimation" (cluster: I-P), can be considered administration-related terms. This is possible as a significant percentage of Linear A tablets have been presumed to be administrative tablets, and Zakros is considered to be one of the principal administrative centers of the Minoan civilisation.
(Refer to dataset 4.215.1 and 4.215.3)

### 5.76 Artefact ZA 10b

Focusing on the word-cluster matches with Semitic, there are two word-cluster matches that allows for a possible interpretation: $d V r$ meaning "drive away, make go" (cluster: D-R) and kīd meaning "outside region" (cluster: K-D). With these two terms, together with Middle Egyptian $d r$ meaning "subdue (enemies), expel, drive out (people, illness)" (cluster: D-R), an assumption can be made of this tablet's content, which may be regarding driving out something out of Zakros, or maybe even Crete itself.

Furthermore, word-cluster matches largely derived from Middle Egyptian may allow for an alternative of this tablet's content. $d r$ meaning "remove (need, evil), repress (wrongdoer), destroy (places)" (cluster: D-R), mki meaning "guard, protect" (cluster: M-K), Dt meaning "body, image, bodily form (of god, statues)" (cluster: D-T), and smA meaning
priest (who clothed the god)" (cluster: S-M), are all terms that can allow for a possible interpretation of the tablet to be that of a priest performing a ritual to appeal to the gods for protection. The Semitic word-cluster match makV', meaning "vessel for offerings" (cluster: $\mathrm{M}-\mathrm{K})$, can also be considered to be a related term in this interpretation.
(Refer to dataset 4.216.1 and 4.216.3)

### 5.77 Artefact ZA 14

With reference only to word-cluster matches with Semitic, $n V k$ meaning "pour out" (cluster: N-K) and $k a^{3} s$ meaning "vessel for beer", "bowl" (cluster: K-S), may refer to the act of pouring liquid out of a container. On the other hand, it is also interesting to note that Semitic $k V \hat{s}$ meaning "pierce" (cluster: K-S) and $t \bar{z} z$ meaning "pierce and tremble (of arrow)" (cluster: T-Z) both have the meaning of perforation, and could be a likely topic.
(Refer to dataset 4.220.1)

### 5.78 Artefact ZA 15a

Word-cluster matches with Semitic such as $t V n V$ meaning "weave", "tie, plait" (cluster: T-N) and šip meaning "wool" (cluster: S-P), may be referring to the process of weaving wool for textile production, something which Minoan Crete partook in.

Alternatively, other word-cluster matches with Semitic like $n V \hat{s} a^{c}$ meaning "introduce a medicine through the nose" (cluster: N-S), mar meaning "(be) bitter" (cluster: M-R) and $\check{s} V k$ meaning "drink", "give a drink" (cluster: S-K), may be regarding the intake of medicine which might have been bitter. This can be taken into consideration with Middle Egyptian word-cluster matches such as $m R$ meaning pain, ailment", "sick, ill, diseased, painful" or "sick man" (cluster: M-R), as well as $s p$ meaning "medicine, dose" (cluster: S-P).

On the other hand, a focus only on word-cluster matches with Middle Egyptian brings to attention some of the terms. iTi meaning "take, take possession of, conduct, remove, arrest, conquer, spend, pass, move, rob" (cluster: I-T), nm meaning "rob (with), steal (with)" (cluster: N-M), $k m$ meaning "total up, amount to, complete" (cluster: K-M) and $m s$ meaning "bring away booty" (cluster: M-S) may be pertaining to the act of obtaining something by force.
(Refer to dataset 4.221.1 and 4.221.3)

### 5.79 Artefact ZA 18a

(Repeated) Just like several other tablets mentioned earlier, the similarity in the wordcluster matches of Semitic and Middle Egyptian for cluster D-R is noteworthy. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". These two terms both refer to driving out something and may be a possible theme. (Refer to dataset 4.222.1 and 4.222.2)

### 5.80 Artefact ZA 20

(Repeated) Just like several other tablets mentioned earlier, the similarity in the wordcluster matches of Semitic and Middle Egyptian for cluster D-R is noteworthy. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". These two terms both refer to driving out something and may be a possible theme.

Another common meaning between two different word-cluster matches with Semitic and Middle Egyptian involve śVt meaning "tie, weave" (cluster: S-T) and Ts meaning "tie (knot), tie on (fillet), weave (cloth)" (cluster T-S) respectively.
(Refer to dataset 4.223.1 and 4.223.2)

### 5.81 Artefact ZA 26a

There are two word-cluster matches with Semitic and Middle Egyptian respectively, which allow for a possible interpretation of the tablet. Semitic did meaning "elder", "honorable title" (cluster: D-D) and Middle Egyptian ST meaning "seat, throne, place, grounds (of house), department, office, storehouse, position, rank of official" (cluster: S-T), may be referencing the rank of an important figure or his/her address.
(Refer to dataset 4.228.1 and 4.228.2)

The next tablet discussed was also obtained from Knossos. Knossos was the capital of king Minos (palace of Knossos) in ancient Crete and the dominant centre of the Minoan civilisation. The site of Knossos stands on a knoll between the confluence of two streams and is located about 8 km inland with relation to the northern coast of Crete.

### 5.82 Artefact KN Za 10a

There are two word-cluster matches with seemingly related meanings that allow for a possible guesswork on this tablet's content, one from Hittite and another Middle Egyptian: Hittite sasā meaning "ornithomantic bird" (cluster: SA-SA) and Middle Egyptian sr meaning "foretell, make known" (cluster: S-R). Ornithomantic bird refers to birds used in divination, in order to seek knowledge of the future. As such, the meanings of these two words can be considered interlinked.
(Refer to dataset 4.232.2 and 4.232.3)

The next two tablets originated from Palaikastro, a major Minoan town found at the east end of Crete, and was considered to be one of the largest areas of settlements of the island. One of the more renowned myths states that Zeus was born in a cave on Mount Petsophas in Crete. As such, this cave was religious in nature. The biggest and most impressive cave is the Psychro Cave, also known as the Diktaian Cave, situated within the Lasithi Mountains overlooking the Lasithi Plain at eastern Crete. Many important religious objects of the Minoan times have been found there.

### 5.83 Artefact PK Za 4

The interpretation of this tablet's meaning is similar to that of tablet KN Za 10a above.
(Refer to dataset 4.239.2 and 4.239.3)

### 5.84 Artefact PK Za 10

It is interesting to note that the word-cluster matches of cluster P-N with Semitic and Middle Egyptian, have similar meanings. Semitic pVn means "turn" and Middle Egyptian pna means "turn upside down". This tablet may be describing the act of orientating something in another way, for a particular purpose.
(Refer to dataset 4.242.1 and 4.242.2)

The several discussed tablets below were uncovered at Iouktas, which is also known as Mount Juktas, was an important religious site, a peak sanctuary, for the Minoan civilisation. In the case of these tablets, the location will be taken into particular consideration when identifying notable word-cluster matches for possible interpretations.

### 5.85 Artefact IO 2a

Looking only at word-cluster matches with Semitic, there are a few matches that stand out more, due to the nature of the tablet's location. $t \bar{c}$ c meaning "flow", "pour (of rain)" (cluster: T-I), šār meaning "wind" (cluster: S-R) and $r V m$ meaning "roar" (cluster: R-M), could all possibly by terms describing the weather; perhaps a downpour accompanied by strong winds.

Aside from that, there are also two word-cluster matches with seemingly related meanings allowing for a possible interpretation of this tablet's content, one from Hittite and another Middle Egyptian: Hittite sasā meaning "ornithomantic bird" (cluster: SA-SA) and Middle Egyptian sr meaning "foretell, make known" (cluster: S-R). Ornithomantic bird refers to birds used in divination, in order to seek knowledge of the future. As such, the meanings of these two words can be considered interlinked.
(Refer to dataset 4.244.1, 4.244.2 and 4.244.3)

### 5.86 Artefact IO Za 6

Word-cluster matches with Semitic ${ }^{\circ}$ in meaning "spread (of water)" (cluster: I-N) and $t \imath^{c}$ meaning "flow", "pour (of rain)" (cluster: T-I), may be possibly be referring to a low flood in the peak sanctuary due to the rain.

Just like several mentions above, there are also two word-cluster matches with seemingly related meanings allowing for a possible interpretation of this tablet's content, one from Hittite and another Middle Egyptian: Hittite sasā meaning "ornithomantic bird" (cluster: SA-SA) and Middle Egyptian $s r$ meaning "foretell, make known" (cluster: S-R). Ornithomantic bird refers to birds used in divination, in order to seek knowledge of the future. As such, the meanings of these two words can be considered interlinked.
(Refer to dataset 4.248.1, 4.248.2 and 4.248.3)

### 5.87 Artefact IO Za 9

The word-cluster match with Hittite sasā meaning "ornithomantic bird" (cluster: SASA) and Middle Egyptian sSA meaning "prayer" or "pray (to)" (cluster: S-S), stand out due to the fact that this tablet was found at Mount Juktas, one of the main peak sanctuaries of the Minoan civilisation.
(Refer to dataset 4.250.2 and 4.250.3)

The next tablet was also found from Khania, better known as Chania. It was a Minoan town and a major palace was located there, making it a palatial city. It also produced the second largest quantity of Linear A tablets. Many notable features from the architecture of various palaces were also observed in the palace here. In addition, there were several ceremonial and cult areas in Khania. Some of the most important sites of this city was found on a hill called Kastelli, situated at the front of the harbour front.

### 5.88 Artefact KH 79 + 89

There are two word-cluster matches with Hittite which may allow for a vague idea as to what the tablet might be about. Together, pat (a) meaning "base" (cluster: PA-TA) and ar meaning "stand (by), be stationed; be present, occur" or "come (to), arrive (at), be at hand" (cluster: A-RA), may be indicating an arrival, possibly of a ship, or a constant presence at the base of a hill. In this case, it shall be assumed to be the Kastelli hill at Chania, since there were several important sites on the harbour front, located there.
(Refer to dataset 4.251.2)

The final two tablets in this discussion was discovered at Symi or Simi, a sanctuary complex located on the southern side of Mount Dikte, 1200m above sea level. A Neopalatial sanctuary uncovered was located on the side of a mountain instead of the top, just like typical peak sanctuaries, giving rise to idea that various religious rituals were held there. A dumping area was also located inside the wall, where the remains of animal bones, cups and pots, were uncovered. This showed that some type of communal eating must have taken place during the rituals. Religious objects found there also consisted of libation tables, some with Linear A inscriptions, cult vessels and symbols denoting the double axe and horns of consecration.

### 5.89 Artefact SY Za 1

With reference only to word-cluster matches with Semitic, $t \bar{c}^{c}$ meaning "flow" (cluster: T-I) and dam meaning "blood" (cluster: D-M), may be describing the flow of blood, maybe from a sacrifice during a religious ritual. This is because the area where this tablet was found was a sanctuary complex where religious ritual often took place.
(Refer to dataset 4.257.1)

### 5.90 Artefact SY Za 2a

Looking at word-cluster matches with Middle Egyptian, the terms smA meaning "priest (who clothed the god)" (cluster: S-M) and $m t$ meaning "die, perish, death" or "dead man, mortal man" (cluster: M-T), makes one wonder if the content of this tablet has something to do with a ritual conducted upon the death of a person.
(Refer to dataset 4.258.3)

Ultimately, there are only 90 Linear A artefacts enabling a possible interpretation of each artefact based on the context and list of word-cluster matches (full list in chapter four). In this section, specific word-cluster matches, that suit the overall probable context of individual artefacts, have been narrowed down. Together with references to the geographical background from where the respective artefacts have been uncovered from, explanations/logical reasonings have been attempted to make further sense of the content's interpretations whenever possible. One notable cluster is that of the D-R cluster, possessing a similarity in the Semitic and Middle Egyptian meanings of the word-cluster matches. In Semitic, $d V r$ means "drive away, make go" while in Middle Egyptian, $d r$ means "remove (need, evil), repress (wrongdoer), destroy (places)" or "subdue (enemies), expel, drive out (people, illness)". Taking into account the surrounding word-cluster matches in the tablets that allowed for potential reinterpretation and the location of the tablets, the D-R cluster shows an indication of relevance and consistency. It has to be emphasised that some of the procedures or results may be considered problematic, for instance the physical breaks in the artefacts giving rise to essentially incomplete Linear A cluster, which may give rise to different meanings altogether (but this issue will never be known currently), or certain seemingly forced interpretations of the artefacts. Nonetheless, given the nature of this study on an undeciphered writing system paired with the insufficiency of the corpus, such steps should not be considered redundant in order to reach the goal of decipherment eventually.

## CHAPTER SIX: FURTHER ANALYSIS

This chapter presents some numerical data of the tablets and word-cluster matches from the discussion above, regarding the possible interpretations of the Linear A tablets. These statistical representations enable a clearer view and comparison of which of the three selected languages (Semitic, Hittite, and Middle Egyptian) has the higher likelihood of having possibly impacted the Minoan language, based on the specific methodology of this paper. Numerical values of the total number of tablets analysed, including those with word-cluster matches (with Semitic, Hittite, and Middle Egyptian respectively) and possible translations, as well as word-cluster matches themselves, have been listed down below. After which, statistical values of the abovementioned factors have also been calculated in terms of percentage. Using all the data obtained, comparison charts have also been presented further down this section to showcase which of the three languages seem to have the greater influence on Linear A.

### 6.1 Numerical Value of Linear A Tablets

Total number of tablets with transliterated and reconstructed clusters: 294
Total number of tablets with word-cluster matches: 260
Total number of tablets with possible translations (under discussion): 94
Total number of tablets with possible translations, consisting of word-cluster matches with Semitic: 66

Total number of tablets with possible translations, consisting of word-cluster matches with Hittite: 19

Total number of tablets with possible translations, consisting of word-cluster matches with Middle Egyptian: 75

### 6.2 Percentage (of tablets under discussion)

Total percentage of tablets with possible translations, consisting of word-cluster matches with Semitic: $70.21 \%$

Total number of tablets with possible translations, consisting of word-cluster matches with Hittite: 20.21\%

Total number of tablets with possible translations, consisting of word-cluster matches with Middle Egyptian: 79.79\%

### 6.3 Numerical Value of Linear A Word-Cluster Matches

Total number of word-cluster matches contributing to possible translations (under discussion): 329

Total number of word-cluster matches with Semitic, contributing to possible translations: 133
Total number of word-cluster matches with Hittite, contributing to possible translations: 22
Total number of word-cluster matches with Middle Egyptian, contributing to possible translations: 174

### 6.4 Percentage (of word-cluster matches under discussion)

Percentage of word-cluster matches with Semitic, contributing to possible translations: 40.43\%

Percentage of word-cluster matches with Hittite, contributing to possible translations: 6.69\% Percentage of word-cluster matches with Middle Egyptian, contributing to possible translations: 52.89\%

Figure 1 below displays a chart comparison of the number of artefacts possessing significant clusters with possible matches in Semitic, Hittite, and Middle Egyptian respectively. The most important factor taken into account, is the presence of words (from word-cluster matches) that are able to form potential interpretations based on the likely context of the inscriptions on the artefacts. Although interpretations were made largely based off personal judgement, some consideration was taken in terms of the location the artefacts have been discovered from, whenever possible. Figure 2 then shows the number of wordmatches in Semitic, Hittite, and Middle Egyptian words respectively, which form part of the conjectured context of the artefact.


Figure 1. Number of tablets consisting of word-cluster matches enabling possible translation


Figure 2. Number of word-cluster matches in the analysed tablets

On the other hand, Figure 3 and Figure 4 below show the percentage comparison of the data presented in Figure 1 and Figure 2 above.


Figure 3. Percentage of tablets consisting of word-cluster matches enabling possible translation


Figure 4. Percentage of word-cluster matches in the analysed tablets

From the charts above, the numerical and percentage values give a clear indication that the reconstructed clusters from the Linear A tablets seem to have the greatest affinity with Middle Egyptian, followed by Common Semitic. However, this may be due to the fact that Middle Egyptian and Common Semitic belong to different branches of the same language family, the Afro-Asiatic language family. As such, there may be some fundamental similarities in the two languages. Thus, according to this methodology, it can be suggested that both Middle Egyptian and Common Semitic, or more generally, the Afro-Asiatic language family could have been a strong influence on the Linear A vocabulary. Contrastingly, it shows the Hittite seems unlikely to have had much of an influence on the
language intrinsic to Linear A, due to its low values in terms of potential translations made. Although the above values do not tally up to the total figure mentioned earlier, this is because a significant number of tablets have possible translations in agreement with more than one language.

The likelihood of a specific language being the underlying language of Linear A is still low and since this paper hypothesised that the language behind the Minoans could be influenced by more than one language due to trade, three options have been considered and presented. This will also enable future scholars to either focus on these languages or look towards other languages. To reiterate, Common Semitic, Hittite, and Middle Egyptian have been selected as target languages of comparison due to the fact that their geographical origins can be considered to be areas nearer to the Mediterranean Sea. The years in which these languages have existed for are also considered relatively close to the time period of Linear A, making them viable options.

As mentioned earlier, Crete is an island in the Mediterranean Sea and it might have been possible for the languages from surrounding areas to have been transmitted to Crete through factors such as trade, and thus influencing the Minoan language. As such, it is likely that the languages of the countries around the Mediterranean Sea, which also existed during a similar time as Linear A, may have reached Crete through trade and influenced the language of the Minoans. If one solely takes into account the influence of trade between the Minoans and their trading partners, the Near East, particularly Egypt, is a strong contender due to the depicted extent of the diplomatic relations and trade conducted between Egypt and Crete during the Bronze Age. Since there had been prolonged contact between the Minoans and the Egyptians, as observed from archaeological evidence and texts, the Ancient Egyptian language could have been more influential on the Minoan language, or vice versa.

The language of Common Semitic selected here is a hypothetical reconstructed language preceding all the historical Semitic languages, reconstructed over decades by many scholars (e.g. Wright, 1890; Fronzalori, 1975; Kaye, 1991; Fox, 1998; Diakonoff, 1998). It was chosen to be one of the target language comparison with Linear A since it fits the chronological framework of Linear A, allowing it to be the best matched with Linear A among all the other Semitic languages despite the fact that it is considered to be hypothetical. The second language selected was Hittite, which is the oldest attested Indo-European
language occurring during a similar timeframe (during the Bronze Age) as Semitic, making it an ideal Indo-European language to be selected. Additionally, the writing system of Linear B, whose underlying language comes from the Indo-European language family, was descended from Linear A. The fact that Linear A and Linear B being related is plausible contributes to the anticipation that the underlying language of Linear A could have been influenced by the Indo-European language family. Middle Egyptian was also another language which existed close to the timeline of the Minoan civilisation. Although hieroglyphic in nature, the pronunciation of the spoken language may have played a role in influencing the underlying language of Linear A, particularly through events when the Minoans and Egyptians interacted with each other during trade or gift-giving. Although Common Semitic and Middle Egyptian are part of the Afro-Asiatic language family, they belong to different branches, allowing them to be considered loosely related. However, it is also important to mention that the nature of the languages from the Afro-Asiatic language family selected here, which show a strong preference for abjads, could have played a role in the results obtained here. This abovementioned factor makes it seemingly easier to obtain word-cluster matches as there are lesser vowels to strictly follow, allowing for more Semitic and Middle Egyptian words to be selected as a match. On the other hand, Hittite belongs to a completely different language family - the Indo-European language family. Overall, the selection of the various target languages for comparison still provides a greater scope in terms of the language type covered.

## CHAPTER SEVEN: CONCLUSION

### 7.1 Summary

This study has selected the three languages of Common Semitic, Hittite and Middle Egyptian for comparison with the reconstructed Linear A clusters. Words derived from the respective three languages that matched the clusters have been listed down under the relevant tablets, before attempts to make sense of the possible content based on the selection of words deemed to be relevant, are made. This is based on the assumption that the Linear A texts comprised mainly of lexical terms and as such, the decipherment attempt in this paper was made through the analysis of vocabulary words. Upon the analysis of the results, it seems that Middle Egyptian had a major influence on the underlying language of Linear A. Common Semitic can then be considered to be the second major influence. As such, an assumption made is that Middle Egyptian and Common Semitic may have impacted the Minoan language to some extent. To reiterate, the findings have been made based on theorised transliterations of the Linear A texts using Linear B sound values and it therefore, cannot be certain that these hypothesised interpretations are correct. In general, studies on Linear A can be particularly gruelling, especially because there is no precise indicator as to what the language(s) or language family of Linear A might be. Thus, all possible writing systems of that time can only be compared with the Linear A texts through a so-called 'guess and check' method. Although no definite conclusion has been reached upon the completion of this study, it is hoped that this paper could be of some assistance to scholars in the field of Linear A, and that there will soon be an eventual decipherment of this enigma known as Linear A.

### 7.2 Research Limitations and Future Studies

It is widely agreed among scholars in this field that the limited corpus size of Linear A texts poses as one of the obstacles in the decipherment of Linear A. The overall small sample size of texts available in present day, as well as the incoherent inscriptions of the many broken tablets, leading to incomplete strings of Linear A texts that are available for transcription and comparison, are some of the foremost issues. Another issue is the direction in which the Linear A texts are to be read, due to the lack of standardised protocol, with the Minoan language being so elusive. However, one thing to remember is that Linear B is adapted from Linear A to express Mycenaean Greek. Since Linear B is read from left to right, Linear A was read in the same direction in this study, through analogy.

Nevertheless, it will be emphasised once again that all the imaginable translations listed earlier have all been obtained through the use of personal perception. This means that the values above are by no means accurate as well, with the nature of this methodology being largely hypothetical and involving a comparative process. Individual inferences and postulations of possible interpretations were conducted, based on the selection of coherent Common Semitic, Hittite or Middle Egyptian words that were a match with both the Linear A clusters. Wherever possible, the choices made were backed with explanations, for example, relating back to the discovery location of the artefact. Furthermore, the process of segmenting the Linear A characters into their respective clusters have been carried out upon analysing the graphics of the artefacts - features that clearly separate one main cluster group from another, for instance, a physical break in the artefact, a short vertical stroke, numbers, or even the presence of logograms. After the original clusters (as readily available according to the graphics obtained from the GORILA database) were established, those clusters were then reconstructed and recombined into several combinations of smaller clusters. Yet, as mentioned earlier, it is still unknown if Linear A is truly a syllabic writing system, making this entire analysis process speculative. It has simply been presumed as so, due to the strong resemblance of Linear B to Linear A. As Linear B is a syllabic writing system, the Linear A in this study is therefore reckoned to be of the same writing system. Furthermore, only three languages have been used for comparison in this study. However, the possibility of Linear A not even encoding language(s) from the branches of language families of Afro-Asiatic (Semitic and Egyptian) and Indo-European, results in a highly speculative study at this stage.

In addition, a manual comparison has been conducted in terms of recording cluster matches with words from the ancient dictionaries. As a result, it is possible that some wordcluster matches may have been unintentionally missed out due to human error.

Thus far, this study has attempted to come up with various combinations of almost all of the Linear A clusters through segmentation and recombination, before manually checking against the entirety of all the three ancient dictionaries of Semitic, Middle Egyptian, and Hittite for potential word-cluster matches to be considered for further analysis. Further analysis was also conducted by attempts at making sense of viable translations, having taken into account the nature of the environment in which the respective artefacts have been uncovered. The results of word-cluster matches and possible translations have also been presented in the form of statistical data in order to better showcase the significance of the
results and impact of each of the language against the other selected ones. As such, this study has contributed to the decipherment process of Linear A by covering the ancient languages of Semitic, Middle Egyptian, and Hittite through the use of the distinct and exhaustive methodology of creating new, yet-to-be analysed Linear A clusters (before this study) through a concerted effort. Upon obtaining results from this study, it can also be suggested that Hittite was unlikely to have been an influence on the language of Linear A. Another takeaway from this study is the feasibly relevant and consistent D-R cluster (mentioned in chapter five), may likely be pointing towards a possible candidate of a language highly similar to the Minoan. Since both the Semitic and Middle Egyptian word-cluster matches and their meanings are similar as well, there is a potential in the Minoan language having a relation to the languages of the Afro-Asiatic language family. In such a situation, future studies can then focus on testing against other Afro-Asiatic languages.

Although the aim is for the decipherment of Linear A, it is undeniable that more work still need to be carried out on the decipherment attempts. In addition, the database of the Linear A tablets and their corresponding text inscriptions need to be expanded, hopefully through more discovery, as the current amount of Linear A data available may not be considered sufficient enough for the current results obtained to have been considered conclusive. Further work can be conducted in the future either using this methodology, although the scope of the languages or language families should be much wider in order to cover all the bases, or through a completely different methodology.

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