



A Vedic Interpretation of Linear A

Astrid van den Kerkhof and Peter Rem*

*Delft University of Technology, the Netherlands

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Abstract

In the past century, various authors linked the late Harappan and Vedic phases of the Indus culture to the contemporary Minoan civilization of Crete. Most recently, V. Sarianidi presented the theory that Near Eastern Aryans with some Minoan characteristics migrated into Central Asia at the end of the third millennium. This paper investigates whether the Minoans were directly related to these Aryan tribes, by testing the relation between the Minoan language as recorded in the Linear A script and Vedic. The result of this test shows that Minoan can be interpreted in terms of the Vedic language.

Introduction

In the past century, various authors reported evidence for a link between the late Harappan and Vedic phases of the Indus Valley civilization and the Minoan culture of Crete. In 1935, L.C. Fábri observed that bull jumping was practiced both in Crete and in the Indus. Then, in 1944, H. Mode pointed out parallels in the art of making terracotta statuettes. The Minoan Linear A script was brought into the discussion with the decipherment of the related Linear B script by A. Kober and M. Ventris in the late forties and early fifties. In 1965-67, R. Kamm argued that some of the Linear B values can be understood from the acrophonic principle if the syllable signs are interpreted as images for Vedic words. S. Alexiou noted that the Minoan ritual in which a priestess sits on a swing has a parallel in the Vedic religion. In 1997, G. Owens sought evidence that the Minoan language is part of the Indo-European family. Owens concluded that Vedic, among other languages, is related to Minoan.

In 1999, V. Sarianidi provided a plausible explanation for the observed similarities between the Minoan and late Indus Valley cultures. His work reconstructs a migration route of Near Eastern Aryans of the end of the 3rd millennium BC, starting from Syria/Anatolia, through Elam, into Bactria-Margiana and the Indian subcontinent. Sarianidi raised the issue of the linguistic origin of these tribes and suggested that evidence from sources such as the Rig-Veda might support and complement the archaeological data. To some extent, linguistic support came from R.D. Gray and Q.D. Atkinson, who established reliable divergence-time estimates for the Indo-European language family that confirmed the Anatolian origin of the Indo-European languages. They set a date of about 4600 BP for the Asiatic subfamily, in approximate agreement with the period of the migration proposed by Sarianidi.

An important part of Sarianidi's argument is based on the parallels in the archaeological record of the migrating tribes with Minoan/Mycenaean seals and architecture. The same Minoan seals have been considered evidence of a connection between Syria and the Minoans of the Pre-palatial Period. The evidence therefore suggests an intriguing possibility: that the Minoans were in fact closely related to the peoples migrating from Syria/Anatolia. If so, the divergence-time between the Minoan language of the Linear A script and Vedic could be as small as a few hundred years. Obviously, the relation between the two languages would then

be very close and even the present limited knowledge of the Minoan language could be sufficient to demonstrate it.

The Minoan language

The evidence for the Minoan language is quite diverse. The Linear A texts themselves include administrative records, religious formulas and occasional short sentences of an unknown nature. The texts can be read if one assumes that the signs of Linear A have the same value as the signs of Linear B. D.W. Packard showed that a considerable part of those signs that the Linear A syllabary has in common with Linear B should also be pronounced in the same way, but his work does not guarantee identical values for all common signs. Nevertheless, several authors have studied the Linear A corpus on this basis (e.g. Y. Duhoux 1989 and G. Owens 1999). Next to the material in Linear A, some allegedly Minoan spells are known from El Amarna (Owens 1997). They are written in Egyptian hieroglyphs. Finally, some names of Minoan kings and goddesses are known from Greek myth. Without doubt, the Linear B archives also contain names of Minoan divinities, but it is difficult a priori to tell which of the recorded names are Minoan (cf. Pylos tablet Tn 316, e.g. in Hooker 1980).

Despite the large number of sources, material that is useful for testing hypotheses on the Minoan language is scarce. Obviously, the ideal test is to select a complex (unique) word or grammatical construct, definitely Minoan, of which the spelling is perfectly accurate and the meaning precisely known, and check if something close exists in Vedic. As far as we know, no such cases exist in the corpus. The material from the Linear B archives has the ambiguous spelling of the linear scripts and it is a guess which words are Minoan. The Greek myths offer some precisely spelled names, and most of these, like Knossos, Phaistos, Minos and Radamanthus, are very probably Minoan, but their meaning is not known. The only conceivable success would be if the Vedic translation of one of these names would make a perfect fit with the myth, which would be very lucky. The meaning of the spells from Egypt is only very broadly known and the spelling of the words is again ambiguous. A first realistic possibility for a test is provided in the Linear A religious formulas. Libation tables, cups and spoons with Linear A inscriptions have been found at many different sites on Crete (transcriptions are provided in Consani and Negri 1999; photographs for example in Buchholz and Karageorghis 1973). The libation formulas show a similar structure as well as some useful variation. An interpretation of these formulas, first in the Linear B values and then in Vedic, could provide a convincing proof if a number of constraints are met that are difficult to obtain by accident:

- The words and grammar should be understandable from the Vedic language;
- Their meaning (in all variations) should be compatible with the libation ritual;
- They should contain elements of the Vedic religion.

Unfavourable points of the libation formulas are the ambiguous spelling of the linear scripts, which allows a considerable freedom of interpretation into Vedic words, and the fact that the meaning of individual words of the formulas is not known a priori.

The evidence for the Minoan language that comes closest to an ideal test is provided in the administrative records, at the same time the largest part of the Linear A corpus. Palace records have been found at many places on Crete and two keywords were identified very early on. They are KU-LO and PO-TO KU-LO. The first keyword appears a few dozen times, with a rare variation KU-LA. It consistently concludes a list of counted items and is followed by a number which is equal to the sum of all the previous numbers in the list. The Mycenaean Linear B records show an exact parallel in the word TO-SO: *so much*. Obviously, the Minoan word indicates the *total number* of the listed items. PO-TO KU-LO appears three times in the

records. It concludes a number of lists, each with its own KU-LO clause, and precedes a number that is equal to the sum of the (sub)totals of the lists. PO-TO KU-LO has therefore been interpreted as *grand total*.

Interpretation of KU-LO and PO-TO

The case of the administrative keywords KU-LO and PO-TO satisfies most of the requirements for a test of the origin of the Minoan language. KU-LO is known from the records of various sites in Crete and none of the attempts to find a close cognate of PO-TO in geographically close languages has been successful. Therefore, both words are very likely Minoan. Together, the keywords also provide a unique, sufficiently complex construct. Unfortunately, the spelling of neither keyword is very accurate. In Linear B, KU may stand for $\kappa\nu$, $\gamma\nu$ or $\chi\nu$, and PO may be $\pi\omicron$ or $\phi\omicron$. LO may also be read as RO, as the corresponding sign may have both these values in the Mycenaean script. However, this latter ambiguity is not a real problem for an interpretation into Vedic. In the words of Whitney (p. 19): “The semivowels **r** and **l** are very widely interchangeable in Sanskrit, both in roots and in suffixes, and even in prefixes: there are few roots containing a **l** which do not show also forms with **r**; words written with the one letter are found in other texts, or in parts of the same text, written with the other.” In fact, that the Linear B script does not distinguish between *l* and *r* is usually regarded as a relic of the Minoan Linear A script and therefore as a sign that the *l* and *r* of the Minoan language are very close, as in Vedic (but also: as in the contemporary Egyptian language). Finally, it can be argued that the meaning of KU-LO and PO-TO is known with sufficient accuracy for the test: geographically close languages have been searched for related words and the combination of both KU-LO and PO-TO has not been found. The only reasonable cognate is *kull* (all) from the Semitic languages.

The Vedic stem most resembling PO-TO is *pota*, which means *combined* or *joint together*. The best fit for KU-LO is *kula* (from *kul*: accumulate, count), which means *collection* or *number* and may refer to any kind of item: people as well as animals or goods. Therefore, Vedic is in fact able to explain the meaning of the two administrative keywords. What is more: also the case endings can be understood from the Vedic grammar. The formal nominatives of *pota* and *kula* are *potas* and *kulas*, but their form in an actual text depends on the initial of the following word. In fact, the trailing *-s* is often dropped and endings on *-o* and on *-a* are both very common in Vedic texts. According to the standard rules, Vedic *potas* would be written as PO-TO if followed by a sonant (g, j, d, b) but not if followed by a surd consonant (k, t, p). Since PO-TO is always followed by KU-LO in the Minoan records, this writing of *potas* is not standard Vedic. However, there is good reason to believe that the euphonic rules of Vedic were different in the past. The oldest Vedic text, the Rig Veda, shows the ending *-o* also before surds (Whitney 1924). Since the Minoan texts also show a minor number of KU-LA cases next to KU-LO, the evidence for the Minoan nominative basically agrees with early Vedic.

Conclusion

The present knowledge of the Minoan language provides a simple test for theories that link the late Indus Valley cultures to the Minoan civilization of Crete. Analysis of two keywords that are known from the palace records of Minoan Crete shows that the Vedic language is unique in explaining correctly both their meaning and grammar and therefore points at a close relation between the two languages.

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