



HOW TO DECIPHER PETROGLYPHS: EXAMPLES FROM ITALY, FRANCE, PORTUGAL, SCOTLAND AND SOUTH AFRICA

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SUMMARY

Using examples from five countries, this paper describes how to read petroglyphs written as rebuses, first by decomposing into Old European syllabary, then by deciphering into Finnish, lastly by translating into English. The first step separates a rebus into basic syllables by referring to a chart of syllable shapes. To easily read these syllables requires a Finnish dictionary spelled like Old European. Scribes employed a number of ways to simplify spelling, such that they could write 1500 words with one syllable, or 8000 words with two syllables. The oldest example comes from Bilzingsleben in Germany. The next four are Aurignacian in France, Camonican in Italy, Tartessian in Portugal and Pictish in Scotland.

RIASSUNTO

L'articolo prende in esame cinque gruppi di incisioni di diversa provenienza geografica - Francia, Valcamonica (Italia), Portogallo e Scozia - offrendo spunti di decrittazione delle figure rupestri.

OLD EUROPEAN SYLLABARY

Many petroglyphs are a form of writing called a rebus, made from letters arranged to look like a recognizable object. For example, if an image looks somewhat like a man, but not really a man, then most likely it is a rebus. With practice, anyone can employ a chart of letter shapes to decompose a rebus, and then read the results with a custom Finnish dictionary. This paper shows how to do it.

The greatest concentration of rebus petroglyphs occurs at Val Camonica in Italy, where half the images are rebuses. I hope some of you will take the opportunity to find an intriguing image and try to decipher it.

The script at Val Camonica is a syllabary called Old European, first identified by Marija Gimbutas in *Language of the Goddess* (1989). It occurs throughout the world except Australia and the South Pole. The script barely ever changes, so the syllabary from Val Camonica can be applied to many other locations.

Old European is a consonant-vowel syllabary with eight vowels and eleven consonants, shown in Figures 1 and 2. The first figure shows the syllabary before the introduction of curved lines, the second that of Val Camonica with curved lines.

The language is Finnish, which exhibits vowel harmony for A-Ä and O-Ö. For unknown reasons, the written language has remained relatively static for hundreds of thousands of years, just adding new words.

Scribes employed several measures to simplify writing. First they compressed all double letters into a single letter, and diphthongs into the first vowel. Then they dropped internal D, J, H and T. Lastly they dropped the final consonant of a syllable. The

only terminal consonants of a word in Finnish are -N, -T, and occasionally -S, all of which can be reconstructed from context.

These simplifications allow 1500 words to be spelled with one syllable and 8000 words with two syllables. In practice, nearly every word is either one or two syllables. Most syllables allow only slight rotation before they change into a different syllable. A few without a mirror image indicate which direction to read the script. Old inscriptions and rebuses always read left to right, top to bottom, but newer inscriptions may read right to left (Figs. 1 and 2).

To illustrate how scribes employed these letters, I will start with a very old inscription whose letters are all straight lines.

GERMANY: DECIPHERMENT OF BILZINGSLEBEN SICKLE HANDLE WRITTEN 350 THOUSAND YEARS AGO

The oldest securely dated inscription comes from the settlement of Bilzingsleben in Thuringia in central Germany, excavated by archaeologist Dietrich Mania in the 1970's. Built 350,000 years ago, the settlement yielded bones of *H. heidelbergensis*, a slender human with large cranial capacity. The site had three round dwellings with hearths by their entrances. Animal bones belonged to elephants, rhinoceroses, horses and buffaloes. Among the artifacts, two had inscriptions. Microlithic tools such as awl and sickle did not fit the Acheulian tradition, so this culture he called *Clactonian*. The campsite had equipment to kindle a fire. For hunting large animals, they employed a heavy spear weighted toward the tip and thrown with a leather

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strap to achieve high velocity. For small animals, they used a small, pointed throwing rod; when thrown, it rotated around its centre of gravity like a boomerang. The inscription on the bone sickle handle consists of four letters that read left to right. The scribe chose letters that read the same, either right-side up or upside-down. It says the scribe plans to make a blade with magic skill. If this blade was made by gluing razor-sharp microliths into a slot in the handle, then the magic skill would be formulation of the glue. This secret recipe was eventually lost, only to be re-discovered in 2005 by Lyn Wadley: mix one part powdered red ochre and three parts sticky tree sap, glue the parts together, cure over low heat for four hours¹.

Old European syllables
TA TE-RA TE. / TE-RA TE TA.
Finnish decipherment of Old European
Taion terä teen. / Terä teen taion.
English translation of Finnish
With magic skill a blade I will make. / A blade I will make
with magic skill.
Italian translation of Finnish
Con abilità magia una lama farò. / Una lama farò con abilità
magica (Fig. 3).

SOUTH AFRICA: DECIPHERMENT OF PINNACLE POINT CAVE EPITAPH WRITTEN 163 THOUSAND YEARS AGO

From Pinnacle Point Cave in South Africa comes the next example of Old European writing, the oldest epitaph in the world, written on a piece of polished ochre, and then buried in the floor. It has an exceptionally precise date of 163 ± 3 ka. A *H. sapiens* skull found nearby makes this the earliest secure date for *H. sapiens*. These modern people arrived by boat, possibly from Brazil. Paleoanthropologist Curtis Marean recovered the stone in 2005, along with blades, bladelets, points, Levallois flakes and heat-treated silcrete - a suite of designs and technologies completely foreign to Africa. On its polished surface, the scribe wrote with discrete syllables that read left-to-right. Unlike the previous example, the scribe chose letters that read differently when held upside down. It memorializes the death of a family, rather than an individual (Fig. 4).

Old European syllables
I PE MA / MA NÄ I.
Finnish decipherment of Old European
Iha pe'e maan / maahan näet iät.
English translation of Finnish
Lovely family of the earth / in the ground you will face east.
Italian translation of Finnish
Bella famiglia della terra / nel terreno si dovrà affrontare est.

The language is Finnish with characteristic vowel harmony. The script is sophisticated, the culmination of thousands of years of use. In all the years since, neither script nor language has changed significantly, which completely contradicts all the tenants of language evolution. If Finnish has been nearly constant for 430,000 years, then it may have been nearly constant far longer, spoken by *H. erectus*, *H. neanderthalensis* and *H. habilis*.

If so, then not only writing, but all language may descend from Finnish, one tongue to bind them all.

FRANCE: DECIPHERMENT OF CHAUVET CAVE INSCRIPTIONS WRITTEN 35,000 YEARS AGO

The third example from France begins to blend letters together. In the spring of 2015 a replica of Chauvet Cave opened amid well-deserved acclaim. Inscriptions by Aurignacian mammoth hunters appear here and there, such as two above the panel of aurochs, horses and rhinos. Once you know what this writing looks like, they can be found in all the painted caves of France and Spain, sometimes as inscriptions like this, but more often as abstract shapes like the antlers of a deer (Fig. 5).

“Dense ground mist, a storm covers with hail.” Thus begins the first inscription above the panel, scratched through an orange crust that covers the wall (Fig. 6). On the first inscription, the scribe merged letters together, like cursive writing. In order to read it, the letters must be pulled apart. This technique of joining letters to make figures began with Aurignacians and reached its zenith amid the petroglyphs of Val Camonica and Pictish Symbol Stones.

Old European syllables, punctuation added
1 TI MA Ü, SA PE TA RA.
2 MI SA LI, 10 LI RE. NI RA.
Finnish decipherment of Old European
1 Tiheä maa u’u, sää peittää raen.
2 Mie sain lihoa, 10 lihat re’in. Nyt rauha.
English translation of Finnish
1 Dense ground mist, a storm covers with hail.
2 I got meat, 10 pieces of meat on a sled. Now there is peace.
Italian translation of Finnish
1 Foschia densa terra, una tempesta copre con grandine.
2 Ho avuto la carne, 10 pezzi di carne su una slitta. Ora c’è
la pace.

ITALY: DECIPHERMENT OF THE ROSE OF VAL CAMONICA FROM 1900 BC

The third example is from Italy, the Rose of Val Camonica, a rebus that resembles a fig leaf amid rows of fig trees in an orchard of nine trees. The four lobes and stem have two meanings: a deeply-lobed fig leaf and a fruit-laden tree of figs, called honey figs. I don’t know the meaning of the nine trees.

Fig trees may have been introduced by Minoans from Crete between 2000 and 1750 BC. Cato the Elder listed five kinds of figs grown in Italy, which grow well in the south and reasonably well in Val Camonica on south-facing slopes (Fig. 7).

Old European syllables
TU SE MA E ME LE.
Finnish decipherment of Old European
Tuo sen maan ehot me’et lehot.
English translation of Finnish
This land produces excellent honey figs.
Italian translation of Finnish
Questa terra offre ottimo miele fichi.

1 The secret was lost until 2005, when Lyn Wadley deduced how it was made by examining the residue on backed blades. “When water was mixed with fresh Acacia gum and red coloring in the first stage of manufacture, it formed successful glue after it was heated – the stone inserts could not be pried from their shafts. Wet resins require more loading agent than drier resins in order to make them manageable.”

PORTUGAL: DECIPHERMENT OF ABÓBADA WARRIOR STELE FROM 650 BC

The fourth example combines writing with a complicated rebus made by Tartessians in Portugal.

Their history begins in Turkey. According to Roman sources, after years of drought, Phrygians in Turkey abandoned their country between 705 and 700 BCE and sailed in convoys across the Mediterranean, looking for well-watered land. Most settled in Italy, France or Spain, but some settled in southwestern Portugal, a people we call Tartessians. Here they made a good living by supplying food, leather goods, textiles and charcoal to miners in the copper mines near Cadiz, operated by Phoenicians. This arrangement ended abruptly when Carthage conquered the region around 500 BCE, shut down the mines and expelled both Phoenicians and Tartessians.

Tartessians cremated their dead, buried the ashes in urns in the ground, and erected funeral steles for their elite. On these steles they carved intricate rebuses and inscriptions to document the exploits of the deceased. The most famous of these is the Warrior Stele of Abóbada², which begins:

You toppled for us, wizard of the border ground of ours that wages war; then you bound them in magic enchantment. You forged thousands and thousands of us with magic skill, star wizard with a short jaw (Fig 8). The scribe addresses Iron Jaw as if he were alive. He draws the famous leader passing through a portal to enter the next world, accompanied by his favorite horse. The stele will aid his passage to the after life and honor his profound leadership. Iron Jaw was the scribe's friend, a general who trained an army of thousands to defend their border in southwest Portugal against the people of Sea Storm.

Archaeologist Amilcar Guerra found the stele in 1998 among Roman ruins outside Almodóvar, and a replica now displays at the Museum of Southwestern Inscriptions at Almodóvar. The most confident date for the stele is 650/625 BC, two generations after the arrival of Tartessians in Portugal. The script uses the same rules for spelling and grammar as Iberian in Spain and Etruscan in Italy, and almost identical writing.

The inscription continues by describing a ceremony at dawn atop a boulder on a nearby hill.

Wizard with an iron jaw: from the boulder of the hill, in the direction of dawn, the chief shall leave the sons at dawn.

The scribe added additional information in the drawing itself.

[To safeguard the journey, I inscribe a scepter of Ra the sun god in your right hand and a crescent moon of the goddess in your left, which will also carry your bow and arrow. Armor will protect your chest, a pleated kilt your lower body, and greaves your shins. Around the portal to the next world I will inscribe magic words of protection, beginning with your favorite horse.]

The scribe tells how Iron Jaw, now called *Hill of Marble* (Mäen Lun), traveled in a sleigh³ with his army to the end of the border woods to engage an army from *Sea Storm* (Merta Säa). One god they prayed to was *Turri*, meaning 'Luck', an epithet of Thor, god of storms, who ostensibly protected their enemy.

On a sleigh I have you went to the land by the end of the border woods of our dilapidated country. But *Hill of Marble* tested *Luck* when *Sea Storm's* thousands broke.

Iron Jaw's luck held, the tide of war turned, and *Broken Oar* (Rii Airis) and his army fled from the border land. Our war turned *Broken Oar* from the land of ours.

Lastly, the scribe observes how war transformed people into men.

War made us; it produced men.

The warrior looks strange because it is a rebus, composed of letters arranged to look like a recognizable object. Every element is writing; to make a rebus as complicated as this warrior required great skill (Fig. 9). The complete text has seven lines:

Lines 1 and 2 from the warrior rebus read left to right, top to bottom with correct letters;

Lines 3, 4, 5 and 7 read right to left with correct letters;

Line 6 reads left to right with reversed letters (Fig. 10).

Tartessian, arranged to read from left to right

1 KA ME, TA RA MA ME, SE SO; NI SI NE TA TE.

2 TA TU TU ME TA, TÄ TA LY SA.

3 NO RA LE PA MÄ, TA KO, PÄ JÄ PO KO.

4 RE MÄ ME-NI MA PÄ-LÄ RA PU ME RÄ MA.

5 VA MÄ LU KO TU-RI, KU

6 ME-TA SÄ TU RI.

SO-ME PÖ RI A-RI MA ME.

SO LA ME;

7 LÖ MI.

Finnish decipherment of Tartessian

1 Kaa'at meiän, taian rajan maan meiän, sen soa; niin sioit ne taion tehon.

2 Taoit tuhat tuhat meiän taion, tähin taian lyhyen saajan.

3 Noia rauan leuan: paahen mäen, tahohon koin, pää jää poiat koihin.

4 Re'en mä, menit maahan päällä rajat puut meiän rähjät maat.

5 Vaan Mäen Lun koe Turrin, kun

6 Merta Sään tuhat ri'oi.

Soamme pöyhi Ri'i Airis maan meiän.

Soan loa'i meiät;

7. löi miehiä.

English translation of Finnish

1 You toppled for us, wizard of the border ground of ours that wages war;

then you bound them in magic enchantment.

2 You forged thousands and thousands of us with magic skill, star wizard with a short jaw.

3 Wizard with an iron jaw: from the boulder of the hill, in the direction of dawn, the chief shall leave the sons at dawn.

4 On a sleigh I have you went to the land by the end of the border woods of our dilapidated country.

5 But Hill of Marble tested Luck when

6 Sea Storm's thousand broke.

Our war turned Broken Oar from the land of ours.

War made us;

7 it produced men.

Italian translation of Finnish

1 È rovesciato per noi, mago della terra di confine di nostra

2 Abobaba mixes Iberian and Latin to make Apo papa meaning 'All Father'.

3 Sleigh may actually be a cart or chariot. An inscription on a vase from Poland circa 4000 BC pictures a 4-wheeled cart, yet calls it a sleigh.

che fa la guerra;
 poi li tenuti in magico incanto.
 2 È forgiato migliaia e migliaia di noi con abilità magica,
 mago stelle con un breve mascella.
 3 Mago con una mascella di ferro: dal masso della collina,
 in direzione dell'alba, il capo deve lasciare i figli all'alba.
 4 In una slitta ti ho andato alla terra
 entro la fine del bosco di confine del nostro paese in rovina.
 5 Ma Collina del Marmo testato Fortuna quando
 6 Migliaia di tempesta del mare ha rotto.
 La nostra guerra si voltò rotto Remo dalla nostra terra.
 La guerra ci ha fatto;
 7 ha prodotto uomini.

SCOTLAND: DECIPHERMENT OF THE BIRNIE SYMBOL STONE CIRCA 300 AD

The last example deciphers the most complicated of all rebus art forms, that of Symbol Stones from Picts in Scotland. They came from Sardinia in 530 BCE, driven out by Carthage. As in Sardinia, they built stone towers called brochs for defense, buried their dead without tombstones and spoke Finnish.

Seven hundred years later, soldiers from Val Camonica were among the men of the Roman Legions who built Hadrian's Wall. These soldiers spoke Finnish, as did Picts on the other side of the wall in Scotland. Some of these soldiers defected to marry Pictish women and brought their writing skills with them, augmented by knowledge of how to skillfully engrave stone. Picts soon began to erect monumental funeral steles with complicated inscriptions in rebus form, called symbol stones. The syllabary of symbol stones matches that of Val Camonica.

One such symbol stone is the Birnie Stone, which begins:

Tuori, provider of thousands of men as Hand, then our family champion as well; the greatest man of all.

The Birnie Symbol Stone was found in the churchyard wall of Birnie Kirkyard near Elgin. It is a class-I symbol stone with three images pecked into the entire rock face down to the ground. The stele, shaped like a torso when seen three-quarter view, dates from 400-500 AD. The topmost image is an *eagle* in profile. It surmounts a headless body with arms folded across the chest in death, called a *divided rectangle*. Lying across the body is a broken spear called a *Z-rod*. Each image is a rebus, comprised of many syllables that form two or three phrases. The reason for separate images of *divided rectangle* and *Z-rod* is that the first was sung by the deceased, while the second was a response from onlookers. At the funeral ceremony, an appropriate person would sing the part of Tuori (Fig. 11).

The *Eagle* symbol describes the prowess of Tuori, Hand of the Realm, who provided thousands of men as Hand, then became clan champion, the greatest of men. His name *Tuori* means 'Thor, Luck'.

Pictish syllables of the Eagle
 TU-O-RI
 TU TU MI NI KÄ,
 NI ME PE U NI;
 Ä U KA.
 Finnish decipherment of Pictish
 Tuori
 Tuoja tuhan'en miehien niin Käen,
 niin meiän pe'en urhon niin;

äjän uron kai'en.
 English translation of Finnish
 Tuori
 Provider of thousands of men as Hand,
 then our family champion as well;
 the greatest man of all.
 Italian translation of Finnish
 Tuori
 Fornitore di migliaia di uomini come a mano,
 quindi il nostro campione famiglia come bene;
 l'uomo più grande di tutti.

The *divided rectangle* inscription is drawn like a body lying on its back with both arms folded across the chest. In place of a head is an *eagle*. It is a farewell song from Tuori, who jokes that by lying here naked he must indeed be fading away (Fig. 12).

Pictish syllables of the Divided Rectangle
 JÄ!
 O SA PU.
 NISA HA HA.
 Finnish decipherment of Pictish
 Jää!
 Oo saa'aa puhas.
 Niin saa'a haihu han.
 English translation of Finnish
 Farewell!
 I am to walk naked.
 Then I will begin to fade away indeed.
 Italian translation of Finnish
 Addio!
 Sono a piedi nudi.
 Poi inizierò a svanire davvero.

The *Z-rod* inscription, a broken spear placed on the body of Tuori, is a response to Tuori's song, a eulogy sung by onlookers. It calls Scotland 'a land of treasure, a land of rainbows'. This phrase is very important, because the great map-maker Ptolemy of Alexandria called the Pictish land *Caledonia*, which comes from *Kaare-toen-ia* meaning 'Rainbow-true country'.

'You court a land of treasure, a land of rainbows, summers of peace on earth forever.'

Pictish syllables of the Z-rod
 RI-MA RA-SE,
 MA KA RI,
 KE-SE RA MA KA.
 Finnish translation of Pictish
 Riiat maan rahaisen,
 maan kaarien,
 keseä rauhan maahan kai'en.
 English translation of Finnish
 You court a land of treasure,
 a land of rainbows,
 summers of peace on earth forever.

Italian translation of Finnish
 È corte una terra di tesori,
 una terra di arcobaleni,
 estati della pace sulla terra per sempre.

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	A	Ä	E	I	O	Ö	U	Y
Vowels	a	ä	e	i	o	ö	u	y
H	ha	hä	he	hi	ho	hö	hu	hy
J	ja	jä	je	ji	jo	jö	ju	ju
K	ka	kä	ke	ki	ko	kö	ku	ky
L	la	lä	le	li	lo	lö	lu	ly
M	ma	mä	me	mi	mo	mö	mu	my
N	na	nä	ne	ni	no	nö	nu	ny
P	pa	pä	pe	pi	po	pö	pu	py
R	ra	rä	re	ri	ro	rö	ru	ry
S	sa	sä	se	si	so	sö	su	sy
T	ta	tä	te	ti	to	tö	tu	ty
V	va	vä	ve	vi	vo	vö	vu	vy

URO AKA PÖ MA MÄ SE SE SE NY PE PA PÄ NA NA NÄ RÄ
 TO TO JA SA RE RE HE JO HE LI KÄ MÄ
 TA LA SA RE LY TU HU VE SU VY KY

Fig. 1 - Old European syllabary before curved lines, plus a crib sheet arranged by geometry.

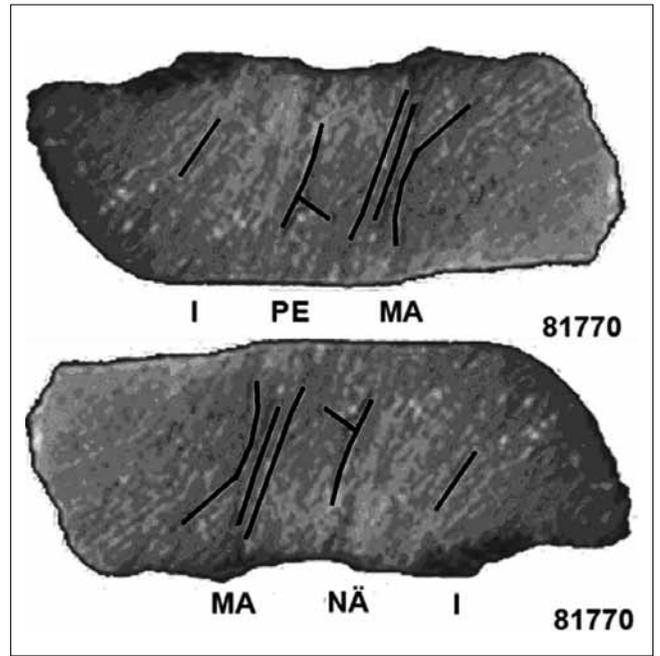


Fig. 4 - Pinnacle Point ochre 81770 image and transcription.

	A	Ä	E	I	O	Ö	U	Y
Vowels	a	ä	e	i	o	ö	u	y
H	ha	hä	he	hi	ho	hö	hu	hy
J	ja	jä	je	ji	jo	jö	ju	ju
K	ka	kä	ke	ki	ko	kö	ku	ky
L	la	lä	le	li	lo	lö	lu	ly
M	ma	mä	me	mi	mo	mö	mu	my
N	na	nä	ne	ni	no	nö	nu	ny
P	pa	pä	pe	pi	po	pö	pu	py
R	ra	rä	re	ri	ro	rö	ru	ry
S	sa	sä	se	si	so	sö	su	sy
T	ta	tä	te	ti	to	tö	tu	ty
V	va	vä	ve	vi	vo	vö	vu	vy

Fig. 2 - Old European syllabary from Val Camonica with curved lines



Fig. 5 - Photograph of Chauvet Cave panel with aurochs, horses and rhinos. Inscriptions appear as white letters scratched through an orange crust above the black animals.

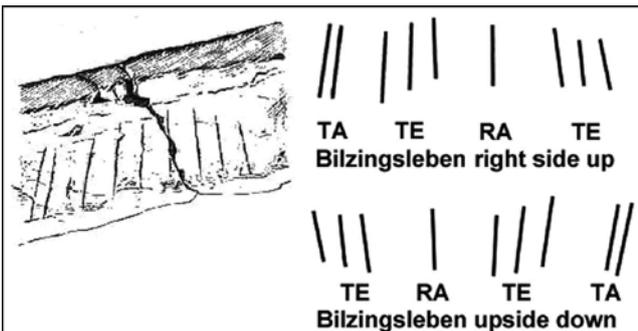


Fig. 3 - Bilzingsleben sickle handle with inscription that reads the same in either orientation.

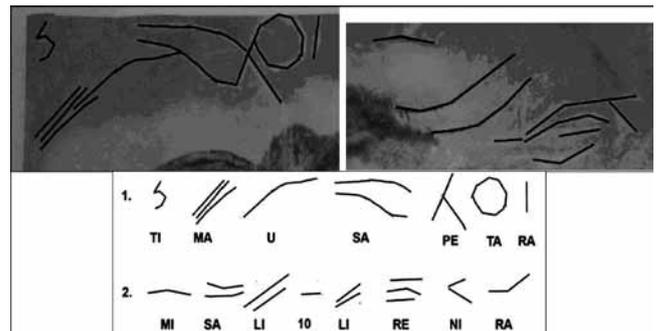


Fig. 6 - Transcription of two inscriptions above aurochs, horses and rhinos.

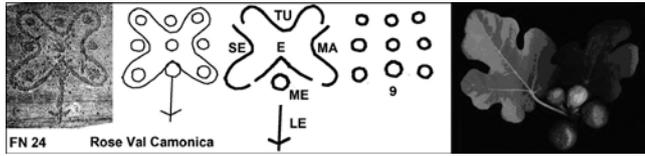


Fig. 7 - Transcription of Rose of Val Camonica, from rock 24 at Foppe di Nadro.

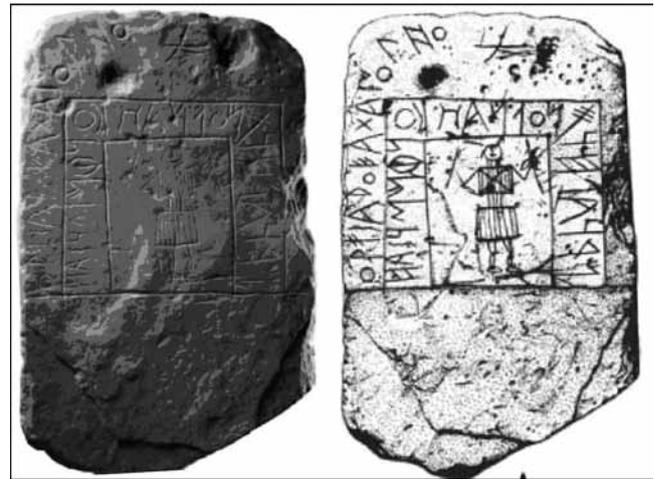


Fig. 8 - Photograph and drawing of Warrior Stele. Museum of Beja.

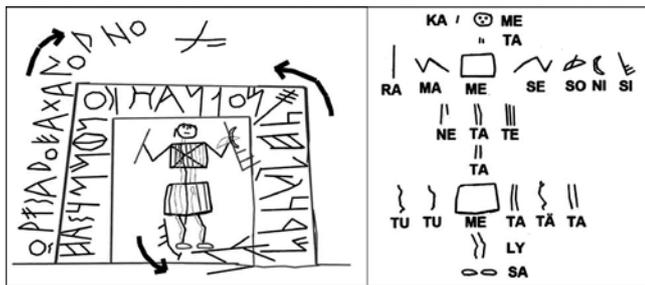


Fig. 9 - The inscription begins with the warrior himself and ends with writing around the perimeter. The warrior is a rebus made from syllables.

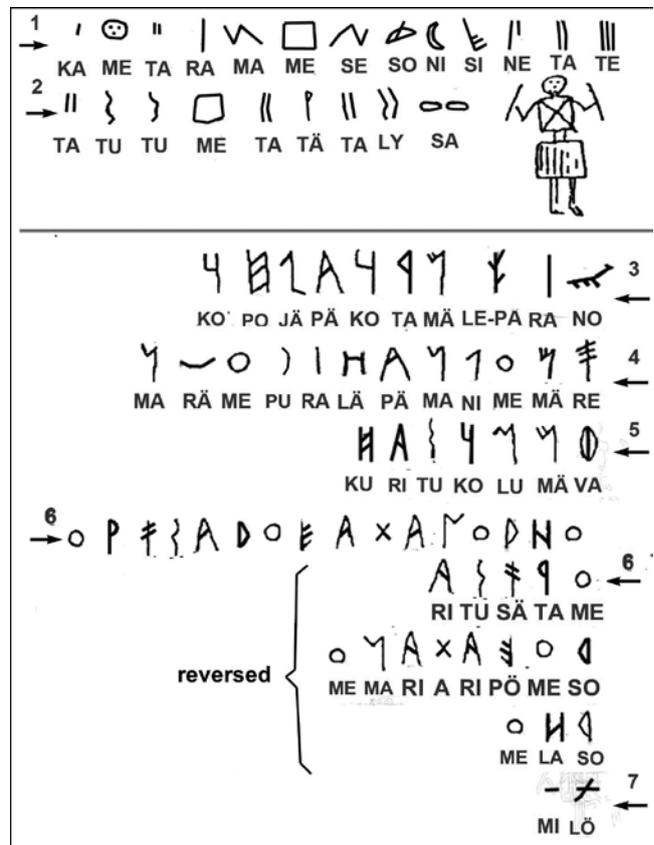


Fig. 10 - Transcription of the stele.

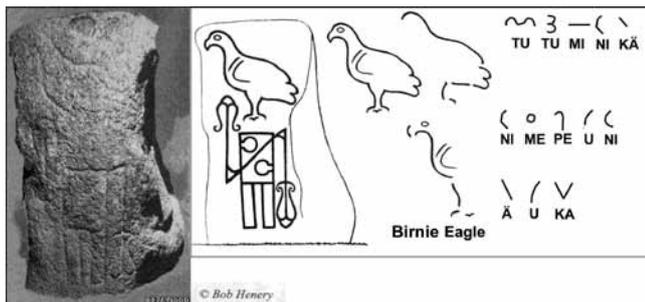


Fig. 11 - Photograph of Birnie Symbol Stone and transcription of eagle symbol.

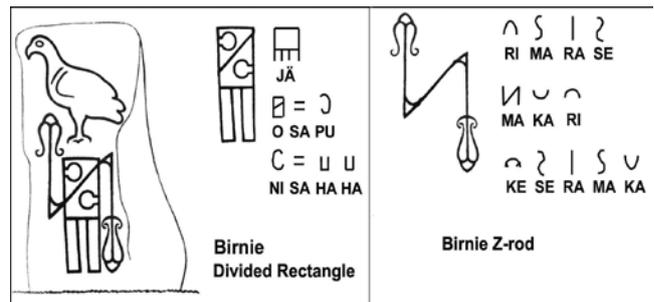


Fig. 12 - Transcription of the divided rectangle and Z-rod.