Indian Journal of History of Science, **24**(2) : 122–133 (1989)

EVIDENCE FOR PROTO-INDIAN ORIGIN OF THE EASTER ISLAND WRITING SYSTEM

BENON ZB. SZALEK

70-444 Szczecin
ul.Mazurska 20 m.7
Poland.

(Received 8 April 1987)

The enigmatic "rongo-rongo" script is one of the most characteristic features of the Easter Island in the Pacific (Fig.1). Legends say that the tablets

Fig–1

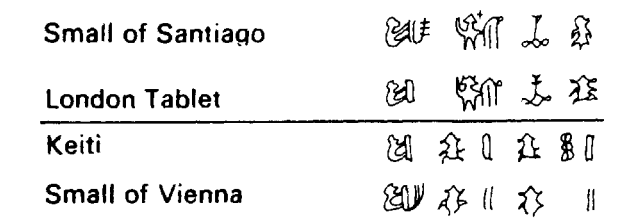
covered with "rongo-rongo" signs were brought hundreds of years ago by the first king Hotu Matua from some unidentified country.[1,2] The tablets were regarded as sacred. The 17th to the 19th centuries were politically unstable in the Easter Island. One part of the population was exterminated about 1680 because of internal animosities. In the 19th century the population was considerably reduced by white slave traders and the monarchy disappeared. The knowledge of the traditional "rongo-rongo" script went into oblivion. The European missionaries burnt most part of the inscribed tablets in order to eliminate the "pagan cult". However, the world of science came to learn in 1864 about the existence of the enigmatic inscriptions. Today, we know about 25 authentic wooden objects inscribed with the "rongo-rongo" signs (20 tablets and some smaller objects). These objects are being kept in various institutions all over the world and good copies are available (for example those published by Th. Barthel in 1958). According to various scientists the number of signs in these inscriptions reached 11-16,000 in total. The longest inscription of the

"Stick of Santiago" contains about 2000 signs, and the shortest 1 sign. The statement that 'the enigmatic inscriptions seem to be undecipherable'results from the history (1864-1987) of the international efforts in this field. Not one full-scale approach to this problem proved to be right in the light of logic, linguistics and the art of scientific decipherment and interpretation. However, the inscriptions of the Easter Island are generally thought to be written in a Polynesian language and by means of pictographic or hieroglyphic script. A very limited number of scientists[3] thought the Easter Island script, in the case of certain signs, to be alike the Mohenjo Daro script.

My work on the Easter Island inscriptions lasted from December 1984 to February 1987. The method of decipherment and interpretation has been described in my book,[4] published with about 20 years of experience in the field of palæography. The results of my work are given below.

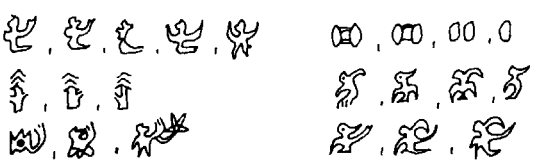
INTERNAL ANALYSIS

Some tablets are inscribed with fully or partially analogous texts. For instance the text of the small tablet of Vienna is a part of the text of the Keiti tablet and the text of the London tablet is a part of the small tablet of Santiago. The texts of the small and the big tablets of Leningrad are part of the text of big tablet of Santiago. These three texts partially coincide with the text of the Tahua tablet. The similarities are illustrated by Fig.2.



Fig—2

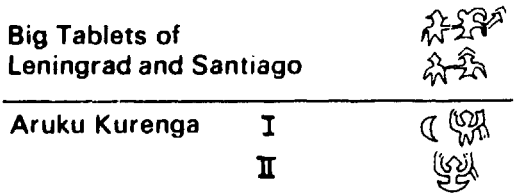
Thanks to the repetition of texts in various tablets, and thanks to the repetition of fragments in the same inscription, I was able to work out sets of equivalents of signs (example : Fig.3).



Fig—3

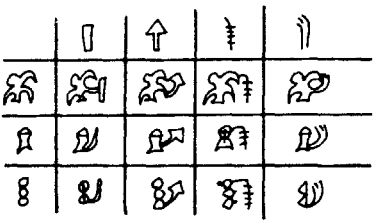
The analysis of these equivalents enabled me to determine the quantity of variants of signs and to put together in a catalogue the really different signs. The most signs are connected with the image of a bird (about 610) and man with

the turtle's head (about 540). Very frequent are signs showing trees, bushes, human beings with hands up (sitting, dancing, jumping), fish, scorpion, crab, moon, hand, necklace, garland, arrow, paddle. The direction of writing is as according to tradition—starting at the bottom from left to right of the tablet. There are two kinds of signs—the simple ones (arrow, man), and the complicated ones, ligatures consisting of elements of simple signs. Thanks to the repetition of texts in various tablets we can follow the process of creation of ligatures (Fig.4).



Fig—4

The texts of Easter Island contain a considerable amount of grammatical and syntactical regularities, the ligatures are put together in a systematic, repeatable and organised way (Fig.5).



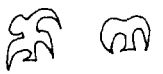
Fig—5

DETERMINATION OF THE LANGUAGE AND SCRIPT OF THE EASTER ISLAND TABLETS

In this phase of my work I compared the information achieved during the internal analysis with facts known from elsewhere. I tried to find out any clue as to the language of these inscriptions and the point of departure, for the reconstruction of the writing system. In the first place I determined the language of the rongo-rongo tablets. How ? I noticed in the texts repeated on different tablets that in relatively many cases the sign of bird has its equivalent in signs somehow connected with death. The examples are given in Fig.6.

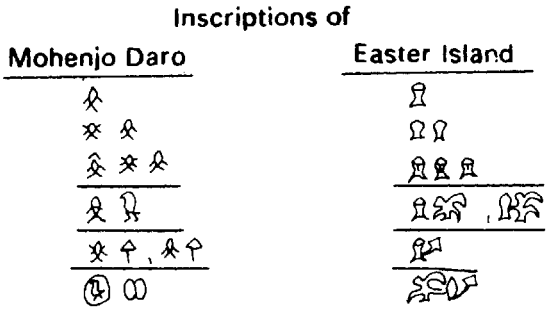
Fig—6

In the first case instead of a bird we see a beheaded man, and in the second case a bird with broken neck. On the well known sculpture of Man-Bird (Museum of New York) we find the sign of a bird accompanied by the sign of a headless bird (Fig.7).



Fig–7

I concluded that these remarkable equivalents cannot be pure coincidence and that in the language of the inscriptions of Easter Island the word "bird" must, at the same time, have the meaning of "death" or "dead". After an analysis of many possibilities I noticed, that such a homonym exists in the Dravidian language of the Tamils. In the language of the Tamils "bird" and "death" can be expressed by one and the same word *'wī'*. And then I noticed that the Dravidian script of Mohenjo Daro and Harappa (2500-1500 B.C.) as deciphered by me in 1984[5-7] contains the sign of "bird" for the same syllable 'WĪ' (Fig.12). What is more, I found that the signs in the Easter Island inscriptions appear in the same combinations as in the texts of Mohenjo Daro (Fig.8).



Fig–8

These facts became the point of departure for the following studies by means of the multi-level analysis.[4] After two years of work I came to the conclusion that :

1. the inscriptions of the Easter Island contain texts in a Dravidian language, very close to the classic language of the Tamils,
2. the script of Easter Island is the product of a long evolution of the script of the proto-Indian civilisation of Mohenjo Daro and Harappa, blossoming in the Indus valley (2500-1500 B.C.).

The Easter Island script is syllabic and the basic simple signs have values of open syllables (*i.e.*, TĒ,KĀ,MA). Of course this kind of script slightly deforms the written words (*e.g.*, tarman—TA-MA). I found that the proto-Indian names

of signs that I have reconstructed in 1984,[5-7] have been preserved in the script of Easter Island with almost no change (examples in Fig.12).

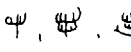
Mohenjo Daro sign	syllable	name of sign	Easter Island sign
	MA	MARAM—tree	
	SA	SARUWAM—spade	

Fig. 9

Fig.10 allows a comparison of simplified syllabaries of Mohenjo Daro (MD) and Easter Island (EI)

MD	syllable	EI	MD	syllable	EI	MD	syllable	EI
	WĀ→ WA			KO→ KŌ			SA	
	WI			MA			SĀ	
	WĪ			MĀ			SE	
	WU			MĪ			TA→ TĀ	
	YA			MŌ→ MU			TI	
	YĀ			NU			TŌ— TU	
	KĀ			PĀ→ PA			TE	
	KU			PI → PĒ			TĒ	

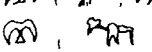
Fig—10

The new thing in the Easter Island script in comparison to the Mohenjo Daro script is the large quantity of variants of signs. Many variants have been produced on the basis of MARAM (tree, bush) sign for the syllable MA (examples in Fig.11).

Fig—11

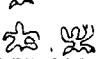
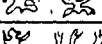
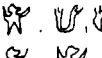
Of key importance in the process of decipherment was the discovery that in the script of Easter Island one and the same syllable could be written by means

of many graphical variants on the basis of multiple meaning of sign names (Fig.12).

syllable	Dravidian name of sign		Variants of signs of Easter Island
MĪ	MĪN	fish	
		to fish	
		star	
WĪ	WĪ	bird	
		death	

Fig—12

The ancient scribes created graphical variants of signs also by employing the similarity of various words to the names of signs. Hence the Easter Island inscriptions are full with all kinds of puns (quibles) (Fig.13).

syllable	Dravidian name of sign	Variants of signs Mohenjo Daro	Easter Island
KĀ	KĀLILI—Lame		
	KALLI—turtle		
	KAULI—Lizard		
TĀ	TĀTU—to call for help		
	—to beg		
	TATTU—to jump		
	TĀNTU—to dance		
	—to jump		

Fig—13

There are many ligatures, that is combinations of elements of basic signs, in the Easter Island inscriptions. An example of how a ligature is to be created and read is given in Fig.14.

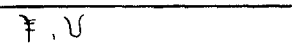
KĀ + YĀ + WĪ + MA + TE

Tamil :	kaya	WĪ	man	tē
English :	big	bird	king-god	

Fig—14

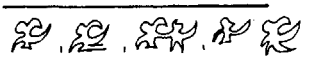
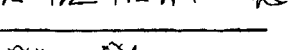
The ancient writer had a whole range of possibilities at his disposal for the graphical representation of words. This resulted from the multitude of variants

of basic signs and from the possibility of choice of various elements of basic signs in the process of creation of ligatures (Fig.15).

Variants of signs		their elements used in ligatures
KĀ		
		
MA		

Fig—15

The system of writing of the Easter Island appears very simple to a person who knows the mechanism of variants and ligatures, but at the same time it will appear extremely complicated to an outsider. According to this system one and the same word can be written in many different ways. (Fig.16).

syllables	Variants of notation
WĪ—TĀ (wital—salvation)	
YA—TĀ (ātam-help)	

Fig—16

INTERPRETATION

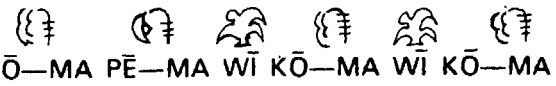
The chains of phonetic values appearing from the process of decipherment reveal texts interpretable by means of the Tamil language. All the tablets investigated by me of the Easter Island mention a god named WĪ, that is "Bird-Death". This god is being given various epithets (Fig.17).

signs	syllables	Tamil words	English
	WĪ—TĒ	wī tē	bird-god
	WĪ—MA	wī man	bird-king
	TI—WĪ	tī wī	fiery bird
	MĪ—WĪ	mī wī	heavenly bird
	MU—YĀ WĪ—MA	muyal wī man	belligerent bird-king
	MU—YĀ MA—KĀ—MA—KĀ	muyal Ma kāma kā	belligerent Ma kā ma kā

Fig—17

This Makāmakā seems to be known in the Easter Island as Makemake. WĪ or "Bird-Death" is said to be a messenger (herald) "tottrarawu" (avatāram), and son of god. The writers call him "merciful", "just", "protective and pure". Let's look at some longer fragments (Fig.18).

Tahua Tablet :



Tamil : kōman pemmān WĪ kōman WĪ kōman
English: king-god WĪ king WĪ king

Tahua Tablet :

Tamil : pēż wān WĪ pēż wān WĪ
English: big splendid WĪ big splendid WĪ

Fig—18

This god could be compared with the Indian Garuḍa, golden bird-god. The inscriptions of Easter Island contain monotonous sets of Tamil *mantras* (prayers) directed at the divine golden Bird-Death, expected to bring salvation (wital).

PROOF

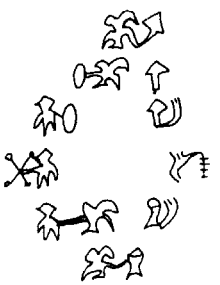
There are many facts in favour of my decipherment and interpretations of the Easter Island inscriptions as texts in Tamil :

1. Words revealed on the basis of "reflected ligatures" make sense and are grammatically acceptable (Fig.19).

ligature	syllables	Tamil and English	ligature	syllables	Tamil and English
	MĪ—WĪ	mī wī – heavenly bird		WĪ—MĪ	winmīn- star

Fig—19

2. It is possible to solve the "crossword" of ligatures by means of Tamil vocabulary (Fig.20).



WĪ—YA
TI—WĪ YA
KĀ-YĀ-TI YA—TĀ
SĀ-KĀ-YĀ TĀ—MA
KĀ-YĀ -WĪ MĪ—TĀ
WĪ—MĪ

Fig—20

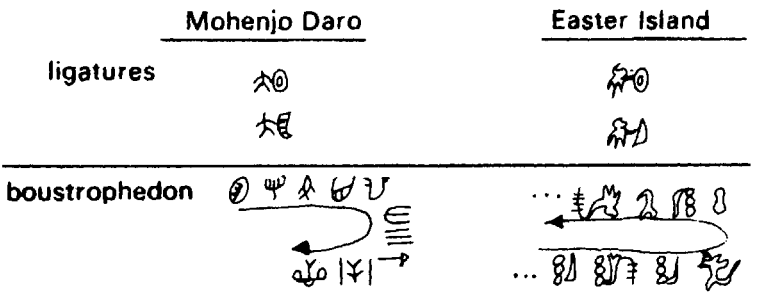
The chains of syllables from the above crossword can be interpreted in the following way :

Syllables	Words	
	Tamil	English
WĪ-YA	wī ai	bird-god
TI-WĪ	tī wī	fiery god
KĀ-YĀ-TĪ	kaya tī	big fire
SĀ-KĀ-YĀ	sakāyam	help
KĀ-YĀ-WĪ	kaya wī	big bird
WĪ-MĪ	winmīn	star
MĪ-TĀ	mī tā	heavenly power
TĀ-MA	tarmam	mercy
YA-TĀ	ātam	help
YA	ai	god

SUMMARY

The "rongo-rongo" tablets of the Easter Island contain Tamil texts written in a syllabic script developed from the proto-Indian script of Mohenjo Daro and Harappa (2500-1500 B.C.). The characteristic features of the Easter Island

script, that is ligatures and the boustrophedon direction of writing, were employed already in the texts of Mohenjo Daro (Fig.21).



Fig—21

The inscriptions of the Island contain *mantras* and prayers directed at the golden god WĪ (Bird-Death) called Makāmakā. This god is said to be avatāram and to bring salvation. The Tamil texts contain Sanskrit words, so the possible period of their redaction could be estimated as later than 4th to 6th centuries. These tablets are said to be brought to the Easter Island by king Hotu Matua, 56 generations before 1860 A.D. So if we assume one generation to be 20-25 years we get 460-760 A.D. as the possible period for this king. Tamils are known to be daring merchants and sailors. Already in 20 B.C. they contacted the Roman Emperor Augustus in Athens (7000 km). So, their appearance in the Easter Island seems possible.

REFERENCES

[1] Metraux, A., *L'île de Paques*, Gallimard, Paris, 1970.

[2] Skinner, H.D., The Easter Island Script, *Journal of the Polynesian Society*, **XLI**, 323, 1932.

[3] Hevesy, W. de, The Easter Island and the Indus Valley Scripts, *Anthropos*, **XXXIII**, 808-814, 1938.

[4] Szalek, B. Zb., *Decipherment and Interpretation of Ancient Inscriptions in Unknown Scripts and Languages*, Politechnika Szczecinska, Szczecin, 1984.

[5] ———, Odczytanie napisow cywilizacji protoindyjskiej, *Problemy*, **2**, 43-44, 1985.

[6] ———, Odczytalem napisy z Mohenjo Daro, *Kontynenty*, **10**, 26-27, 1985.

[7] ———, Decipherment and Interpretation of the Proto-Indian (Mohenjo Daro and Harappa) Inscriptions, *Indian Journal of History of Science*, **21**, 72-76, 1986.

[8] ———, *Odczytanie napisow rongo-rongo z Wyspy Wielkanocnej (Translation of the Easter Island rongo-rongo Inscription)*, DK Sloviania, Szczecin, 1987.

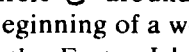
APPENDIX

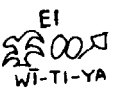
There was some difference of opinions between the referee and the author. While accepting the article the Editor considers it desirable to print below the comments of the referee and the reply of the author thereto.

Referee's Opinion :

In figure no. 8 the signs from Mohenjo Daro records do not correspond to those from the Easter Island inscriptions, also drawn by him. Moreover, though he dates the Indus Valley records 2500-1500 B.C. and places the Easter Island inscriptions after 5th-6th century A.D., he postulates a possible origin of the Easter Island script in a script developed from that of Mohenjo Daro and Harappa. He reaches at this conclusion without giving new evidence of the survival of the Harappa script till the early Christian centuries, of which we have no evidence. So even without denying the possibility of an Indian connection of the Easter Island script we can safely assert that the paper under review does not furnish any proof of such connection.

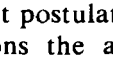
Author's Remarks :

The Fig. 8 is preceded in my article by this statement : '.....the signs in Easter Island inscriptions appear in the same combinations as in the texts of Mohenjo Daro.....' The only doubt could appear with regard to the last example  and  , but to the reader of my earlier paper it would be known that the circle O around the sign  from a Mohenjo Daro aphorism meant only the beginning of a word, and as shown in Fig. 3  (as simplified in the Easter Island inscriptions). So after this corrections we have :

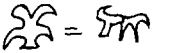


(YA for Al-god
WI TI—fate)

As to the sign  it is a ligature for 

The second claim of the referee is that I 'postulate a possible origin of the Easter Island script in a script developed from that of Mohenjo Daro and Harappa'. I don't postulate. I have found, after a long analysis of the Easter Island inscriptions the analogy of chains of signs and as in Fig. 6 the equivalence of  This is the point of departure. It is not I who put the sign of  instead of  into the sacred text. The chain of my reasoning is represented in my paper. I am drawing conclusions and I don't postulate.

The third claim of the referee is that I don't give 'any evidence of the survival of the Harappa script till the early Christian centuries, of which we have no evidence'. I don't understand this statement. I am dealing with signs, inscriptions—already published. However, I know of 2 golden horns of the same make (dated 5th/6th cent. A.D., found in the 17th-18th cent. in Denmark, the same place, then stolen and destroyed in the 19th cent., (but fortunately after some good copies of them were done) of certain interest for this matter—one horn was inscribed with early 'runes', the other with signs resembling strongly the Easter Island signs. This has been published in the German journal *Anthropos* in 1984 (K.Horedt). It would be a matter of speculation whether the horn came from India or Easter Island. It is an obscure fact.

The last claim of the referee is that 'the paper under review does not furnish *any proof* of such connection'. So what does prove the equivalence of  and other facts presented in my paper ?