



INSTITUTE OF  
DISTANCE STUDY  
SIMLA





Sankar Hajra

ON  
THE DECIPHERMENT OF  
THE INSCRIPTIONS OF  
THE SEALS OF  
HARAPPA AND MOHENJODARO

1974

SUBARNAREKHA

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*Artist :* Siddeswar Nath

*To*

*My Revered Father,*

*RATIMOHAN HAJRA,*

*who, occupying a humble station in life, always*

*held his head high and encouraged*

*his poor son in the pursuit*

*of knowledge and*

*truth.*

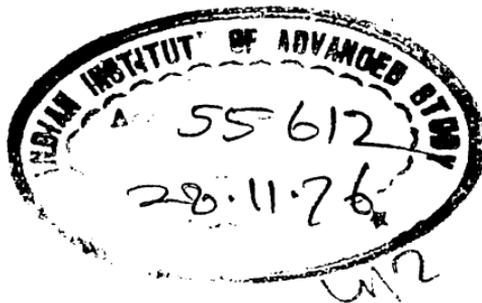


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## PUBLISHER'S NOTE

It is more than a decade when the sphinx-like nature of Harappa-Mohenjodaro scripts silently lured a young scholar of Calcutta, Sri Sankar Hajra, into an attempt of unravelling its mystery. Undaunted by the insurmountable difficulties in the sphragistics which have baffled and marred the attempts of many an eminent epigraphists and archaeologists, he began working on the scripts quite on an independent line. His early interest in and enthusiasm for the scripts have remained unabated during all these years and the present edition bears testimony to his long years of labours and research.

This brochure is not the author's maiden contribution to Harappology. His earlier work 'Essays on Harappa Culture' (Subarnarekha, 1970) throws light on two distinct ethnic migrations from Iran to India in Post-Harappan periods. His statistical

article 'The weight of raktikā for punch-marked coins' (J.N.S.I., 1970, Pt. II) calculates 'the maximum likelihood estimate' of 1 raktikā for P.M. coins and upholds Kosambi's views on Harappan weights and P.M. coins.

As I publish this work, I trust that those who are qualified to judge will recognise its merit at once. I feel sure, it will evince and stimulate, by its intrinsic worth, interest in it, even if one does not accept his interpretation of the enigmatic Harappa-Mohenjodaro Scripts.

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## INTRODUCTION

Seals are the instruments of daily use now-a-days. From ministers to petty officers, from monopolists to small businessmen, all of them use their seals. But its uses, according to Newberry, are as ancient as the Pyramid builders of Memphis. Still older is its existence in Northern Mesopotamia where seals of criss-cross patterns have come from Tell Arpachiya and Tepe Gawra in their Tell Halaf periods, which can be dated to the 1st half of the 4th millenium B. C.. The uses of the seals were far more of the necessity to the ancient people than our seals and locks and keys to us.

In Egypt, the uses of the seals were various *e.g.* (a) for securing property from theft ( as locks and keys ) (b) for authenticating documents (c) for transference of authority ( as official symbol )

Though the practical uses of the seals were very common, the ancient seals were more than the instruments of practical use. They might have possessed religious and magical properties and there is the fair possibility that the seals were also used as amulets which acted as sympathetic preservative against sickness and misfortune. By the fourth millenium B.C., seals were used abundantly in the ancient cities connected by river and caravan routes in Mesopotamia, Egypt and Syria. These seals would generally possess certain marks which would reflect the individuality of the owner.

According to King, the uses of the seals were almost contemporary with the very institution of private ownership in the society. The institution of private ownership developed in the society through a long process facilitating the mode of production in the ancient world. Hence, it may be evident that seals also through certain process of development took the form of personal seals and the uses of them became abundant as the mode of production became dynamic with the formation of private ownership in the society following its urbanisation.

Whatever may be the various uses of the seals and their process of development in the ancient world, it can be assumed that the seals should bear personal names and place-names and this is the case from Egypt to India. Indeed, seals of the old world would invariably possess the personal names of the peoples of antiquity.

Many ancient records and literatures right from the Mahābhārata to the Bible include passages describing the personal uses of the seals. In the Bible we see the delivery of the personal seal and cord of Judah to his daughter-in-law Tamar in lieu of her lying with him. Herodotus mentions that every man of Babylonia carried a seal and the same fact is equally true for the ancient people of Egypt. Newberry thinks that anybody of ancient Egypt who would possess of the smallest amount of property should bear a seal, otherwise, no legal documents could be attested. The story of personal seals are also not uncommon in the Mahābhārata and the Haribansā. The seals of minister Rākshasa has taken an important part in the drama Mudrārākshasa.

A good number of personal seals has been excavated from Kasiā, Saṁkaram, Sahēṭh-Mahēṭh Bhitā, Pāṭaliputra, Basārḥ and Bēsagar. A sample of the inscriptions of the personal seals and sealings obtained from those sites are given below :—

*Pearse Collection*

- Lakhana (?) sa (Kharoshṭhī)—“(The seal) of  
Lakshmaṇa ?”
- Kapilasa (Kharoshṭhī)—“(The seal) of Kapila.”
- Badasa (?) “(The seal) of Bada”
- Titasa “(The seal) of Titus.”

*Sahēṭh-Mahēṭh*

Mātrīsyā (?) [5th or 6th Century A. D.]

*Bhitā*

- Amātya Dharmadēva—“(Seal of) the minister  
Dharmadēva”
- Kulikanigama (sa)—[4th or 5th Century A. D.]  
—“Of the corporation of Kulika”
- Kasakasa—“(Seal) of Kasaka”
- Pusasa—[1st Century B. C.]—“Of Pusa”
- Jayasēnasa—[Kushāṇa Characters]—“Of Jayasēna”
- Bhuṭakasa—[Kushāṇa Characters]—“Of Bhuṭaka”

Chitrakra (ā) ma—[Gupta Characters]—Place name.  
 Vichhīrāma—[4th or 5th Century A.D.]—Place name.

*Kasiā*

[Bā] sukasya—[c.A.D. 900]—“(Seal) of Bāsuka”

*Kumrahar*

Gōpā!asa—[1st Century B.C.]—“(Seal) of Gōpā!a”  
 Chatrasya—[Gupta Characters]—“(Seal) of Chatra”

*Basārḥ*

Vesā!i—anusam̄yānaka—ṭakārē—[3rd Century B. C.]  
 “(Seal of) the Vāiśālī police at Ṭakāra (Outpost)”  
 Dhanasya—“(Seal) of Dhana”

*Bēsagar*

1 Sūryyabhartṛivara—pu =

2 (tra) sya Vishn [u] guptasya

“of Vishṇugupta, son of Sūryyabhartṛivara”

Let us also examine the inscriptions of the seals  
 obtained from the other parts of the ancient world.

*Aramaic*

Belonging to Sin—ah—ittannu (?)

*Pehlavi*

apastan w (= c) l yzdan—Trust in the gods ; Glān

duḥti gusnšpi, Guljān (“Rose-soul”), daughter of Gušnasp.

*Old Persian*

u—pa—a

To

a—ra—ta

Arta—

χ [a—ṣ̌]a—[θ<sup>r</sup>a—a]

xerexes

*Sumerian and Akkadian*

Kurub—Ilag ; Urlama, son of Urgan ;

Nûr—Adad, son of Abu-uduḥ ; Girni, servant of

Lu-dingira ; Natium, servant of Ninanshesh ; Dudu,

the great runner ; Ninkalla, wife of Nintil ; Nergal,

the mighty hero, son of Enlil ; Ninshubur, true

messenger of Anu ; Lisatum, son of Imgurum,

servant of (the god) Adad.

*Egyptian*

Nefer-ka-ra ; Shabaka ; Kha-ka-ra ; Kha-nefer-ra ;

The Lady, Nub-em-sau-es ; The Royal Daughter,

Meh-en-pet-tha ; Nefret-ari, beloved of Mut.

*Megiddo*

Hmn.

*Hittite*

Tarku-muwa KING me + r(a)—a LAND

“Tarkummuwa, king of the land of Mera.”

*Mycenean*

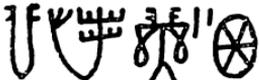
me-za-wo Corslet 2 Horse Ze 1 :—Mezāwōn : two corslets, one pair of horses, ti-ri-jo-pa 2, wheeled chariot 1, Corslet 1, Horse 1, e-ko 1 :—Triopās : one chariot, one corslet, one horse - (already) having one.

From Wadell to Rao many scriptologists have tried to decipher the Harappan scripts from various outlooks. Some of them have tried to decipher the scripts from their outward similarity with other scripts and some of them have discovered ingenious methods of their own in order to equate the Harappan scripts with certain alphabet, objects or ideas. But in all the cases, the deciphered contents of the seals are meaningless and not even the least appropriate though the decipherers have given much of their energy to bring some faint meanings from those decipherments.

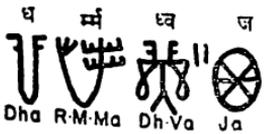
But a very important method of decipherment has been overlooked by them. This is the comparison of the Harappan inscriptions with structure of the personal names of the various peoples of the ancient world taking into account the inflections and

affixes attached with them, as it is highly probable that the contents of the most of the Harappan seals are some (expanded and contracted) personal names and place names with inflections and affixes.

When I began to compare the Harappan inscriptions with the Sanskrit and Sanskritic Onomatology, I noticed a striking similarity of the most probable

inscription of the broken seal MI <sup>58</sup><sub>178</sub> 

with the structure of a purely Sanskrit word, धर्मध्वज

*i.e.* . Thus the inscription of this

important seal not only coincided with the structure of the compound Sanskrit word DHARMMA-DHVAJA but also pointed to two important features of a typical seal *i.e.* (i) the embodiment of a very popular ancient name धर्म DHARMMA with the word ध्वज DHVAJA [seal, emblem, sign of any trade (especially of a distillery or tavern) Mn. IV, 85; M. Monier-Williams] and (ii) the entanglement of a very practical idea :—“The seal of DHARMMA (the wine merchant ?)” which should be found on a seal.

This resemblance also pointed out that the scripts are essentially 'phonetic, but not philosophical, mystical or symbolic.'\*

Moreover, when all the inscriptions written with the rearrangement of the scripts of the inscription of MI <sup>58</sup><sub>178</sub>, in twos or in threes, were tested with the phonetic equivalences calculated from MI <sup>58</sup><sub>178</sub> [ see Text, the Decipherment Table A ], all of those seals spoke in the same language as the seal MI <sup>58</sup><sub>178</sub> spoke.

Even two seals gave the words like धम्म DHAMMA and धम्मज DHAMMAJA ( created by DHARMMA ). These seals were, no doubt, the seals of the same person DHARMMA, most probably, a renowned merchant ( of wine ? ) of the city.

I have tried to demonstrate the effectiveness of my decipherment in 5 categories of the paragraphs on Interpretation ( V ). The consistency of the inscriptions with the objects on which those are written gave me exceptional pleasure and deep inspiration to pass my long laborious years in this mysterious kingdom of the all unknown.

These gave me the confirmation as well as the conviction of proceeding forward. This is the method as well as the story of my decipherment.

## II

### ATTRIBUTION OF PHONETIC VALUES TO THE PICTOGRAMS

From the elaborate study of the inscriptions of the seals of Harappa and Mohenjodaro ( henceforth written as HM ) I have found out some interesting results which I wish to convey to the scriptologists.

A. The result of application of some intuitive phonetic values to the pictograms of the seal

MI 58  
178  is curious. If we take it

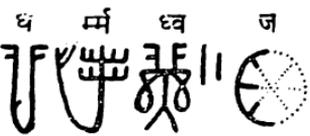
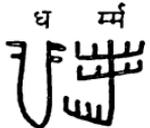
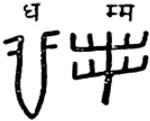
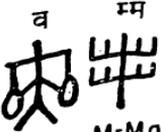
to be  ; The seal of

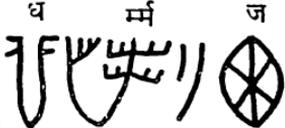
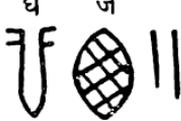
DHARMMA; [  = ध ;  = र ;  = म ;

 = व and  = ज ] all the seals with the

combinations of those pictograms will speak in Prākṛta language and tell some Aryan personal names and place names.

[ MI :—Marshall Sir J. H.—Mohenjodaro and the Indus Valley Civilisation. Mc :—Mackay E. Further Excavations at Mohenjodaro Vol. II. Vt :—Vats M. S. Excavations at Harappa Vol. II. H :—Hunter G. R. Scripts of Harappa. The upper and the lower indices represent the numbers of the plates and the seals respectively. ]

<p>ध र्म ध्व ज</p>  <p>Dha R-M-Ma Dh-Va Ja</p>	<p>धर्मध्वज MI 58 178 DHARMADHVAJA. The seal of DHARMMA ( the wine merchant ).</p>
<p>ध र्म</p>  <p>Dha R-M-Ma</p>	<p>धर्म Mc<sup>103</sup><sub>7</sub> DHARMMA.</p>
<p>ध र्म</p>  <p>Dha M-Ma</p>	<p>धर्म Mc<sup>85</sup><sub>154</sub> DHARMMA.</p>
<p>व र्म</p>  <p>Va M-Ma</p>	<p>वर्म MI 60 268 VARMMMA.</p>

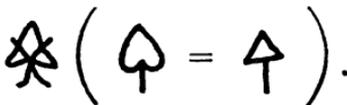
<p>ध र</p>  <p>Dha Ra</p>	<p>धर</p> <p>Mi <sup>62</sup><sub>385</sub> DHARA<sup>1</sup>.</p>
<p>ध र्म ज</p>  <p>Dha R-M-Ma Ja</p>	<p>धर्मज</p> <p>Mc <sup>84</sup><sub>65</sub> DHARMMAJA.</p> <p>Created by DHARMMA.</p>
<p>ध ज</p>  <p>Dha Ja</p>	<p>ध्वज</p> <p>Mc <sup>83</sup><sub>21</sub> DHVAJA<sup>2</sup>.</p>
<p>ध ज्ज</p>  <p>Dha Ja Ja</p>	<p>ध्वज</p> <p>Mc <sup>82</sup><sub>692</sub> DHVAJA.</p>

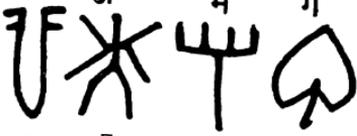
B. Now it may not be difficult for us to find out the phonetic values of (i) ✱ (ii) ✱ (iii) E  
 (iv) 人 (v) 0 (vi) 4 (vii) 0 (viii) 0  
 (ix) 0 (x) 0 (xi) 0 and (xii) 0 by checking and rechecking.

(i) Attribution of phonetic value to the pictogram : .

<p>ध      ज      म</p>  <p>Dha      U      Ma</p>	<p>धूम</p> <p>Mc <math>\begin{matrix} 102 \\ 10a \end{matrix}</math> DHŪMA.</p>
<p>ध      ज      म      ज</p>  <p>Dha    Ū      Ma      Ja</p>	<p>धूमज</p> <p>Mc <math>\begin{matrix} 86 \\ 168 \end{matrix}</math> DHŪMAJA.</p> <p>Created by DHŪMA.</p>

The phonetic value ऊ (Ū) may be attributed to the ŪRDHVABĀHUH ऊर्ध्वबाहुः pictogram : .

(ii) Attribution of phonetic value to the pictogram : .

<p>ध      ज      म      ग</p>  <p>Dha    Ū      Ma      Ga</p>	<p>धूमक</p> <p>Mc <math>\begin{matrix} 95 \\ 453 \end{matrix}</math> DHŪMAKA.</p>
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<p>ध      ऊ      ग</p> <p>Dha      Ū      Ga</p>	<p>धूक Vt    DHŪKA<sup>3</sup>. 1500</p>
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The phonetic value ग (GA) can be attributed to the pictogram representing गति: GATIḤ.

(iii) Attribution of Phonetic value to the pictogram :

<p>अ      ध्व      ग</p> <p>A    Dh-Va    Ga</p>	<p>अध्वग Vt    ADHVAGA. 2482</p>
<p>अ      ध्व      ग</p> <p>A    Dh-Va    Ga</p>	<p>अध्वग Vt    ADHVAGA. 12150</p>

<p>अ ध</p>  <p>A Dha</p>	<p>अधः Vt ADHA (H). 4552</p>
<p>अ ध ज म</p>  <p>A Dha U Ma</p>	<p>अधूम Mc<sup>95</sup><sub>444</sub> ADHŪMA.</p>

Thus the phonetic value अ (A) may be appropriate for the pictogram : 

(iv) Attribution of phonetic value to the pictogram : .

<p>अ ग म</p>  <p>A Ga Ma</p>	<p>अगम Mc<sup>89</sup><sub>351</sub> AGAMA<sup>4</sup>.</p>
<p>अ र्ध ग</p>  <p>A R-Dh Ga</p>	<p>अर्धक Mc<sup>99</sup><sub>662</sub> ARDHAKA.</p>

<p>अ ग ध    A Ga Dha</p>	<p>अगद्  Vt AGADA<sup>5</sup>.  12329</p>
<p>ग ज    Ga Ja</p>	<p>गज  Vt GAJA.  11449</p>
<p>अ ग    A Ga</p>	<p>अग  Mc<sup>88</sup><sub>274</sub> AGA<sup>6</sup>.</p>
<p>अ ध्व ग    A Dh-Va Ga</p>	<p>अध्वग  H ADHVAGA.  106f</p>

We may attribute the phonetic value ग GA to the pictogram depicting गति GATI  .

(v) Attribution of phonetic value to the pictogram

	<p>मयम्            Mc<sup>88</sup><sub>319</sub> MAYAM            Given to MAYA.</p>
	<p>ध्वज            Mc<sup>99</sup><sub>671</sub> DHVAJA</p>
	<p>च गज            MI<sup>116</sup><sub>479</sub> Cha GAJA;            and GAJA.</p>
	<p>ध्वज            MI<sup>111</sup><sub>335</sub> DHVAJA.</p>

Hence, we may conclude that YA य is the appropriate phonetic value for .

(vi) Attribution of phonetic value to the pictogram .

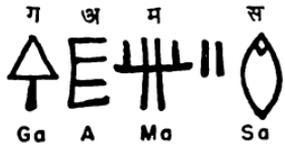
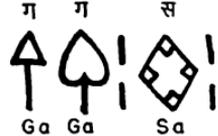
 <p>भ य Bha Ya</p>	<p>भय Mc<sup>87</sup><sub>244</sub> BHAYA.</p>
 <p>भ य ज Bha Ya Ja</p>	<p>भयज Vt BHAYAJA. J394 Made by BHAYA.</p>
 <p>अ भ य A Bha Ya</p>	<p>च भय Mc<sup>102</sup><sub>15a</sub> Cha BHAYA<sup>7</sup>; and BHAYA.</p>

<p style="text-align: center;">भ      ग</p>  <p style="text-align: center;">Bha      Ga</p>	<p style="text-align: center;">भग</p> <p style="text-align: center;">M<sub>1</sub><sup>102</sup> BHAGA<sup>8</sup> 244</p>
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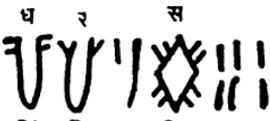
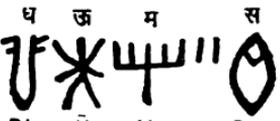
We may think that the phonetic equivalence of  is भ BHA.

(vii) Attribution of phonetic value to the pictogram  .

<p style="text-align: center;">ध      म्मं      स</p>  <p style="text-align: center;">Dha R-M-Ma Sa</p>	<p style="text-align: center;">धर्मस्य</p> <p style="text-align: center;">M<sub>c</sub><sup>84</sup> DHARMMASYA 102</p>
<p style="text-align: center;">भ      य      स</p>  <p style="text-align: center;">Bha Ya Sa</p>	<p style="text-align: center;">भयस्य</p> <p style="text-align: center;">M<sub>c</sub><sup>84</sup> BHAYASYA. 60</p>

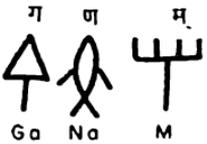
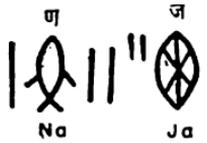
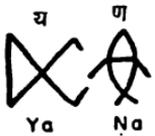
<p>ध र स</p>  <p>Dha Ra Sa</p>	<p>धरस्य</p> <p>Mc<sup>99</sup><sub>653</sub> DHARASYA</p>
<p>अ ग स</p>  <p>A Ga Sa</p>	<p>अगस्य</p> <p>Mc<sup>88</sup><sub>289</sub> AGASYA.</p>
<p>ग अ म स</p>  <p>Ga A Ma Sa</p>	<p>ग्रामस्य</p> <p>Mc<sup>95</sup><sub>485</sub> GRĀMASYA.</p>
<p>ध र स</p>  <p>Dha Ra Sa</p>	<p>धरस्य</p> <p>Mc<sup>95</sup><sub>450</sub> DHARASYA.</p>
<p>ग ग स</p>  <p>Ga Ga Sa</p>	<p>गगस्य</p> <p>Mc<sup>95</sup><sub>435</sub> GAGASYA.<sup>9</sup></p>

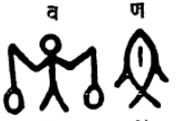
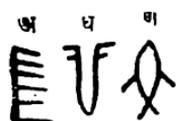
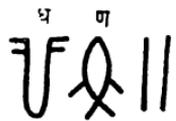


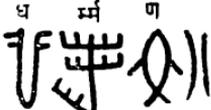
<p style="text-align: center;">ध र स</p>  <p style="text-align: center;">Dha Ra Sa</p>	<p style="text-align: center;">धरस्य</p> <p style="text-align: center;">Mc 83 45 DHARASYA.</p>
<p style="text-align: center;">ध म स</p>  <p style="text-align: center;">Dha Ma Sa</p>	<p style="text-align: center;">धमस्य</p> <p style="text-align: center;">MI 113 465 DHAMASYA.<sup>10</sup></p>
<p style="text-align: center;">ध ऊ म स</p>  <p style="text-align: center;">Dha Ū Ma Sa</p>	<p style="text-align: center;">धूमस्य</p> <p style="text-align: center;">Mc 95 476 DHŪMASYA</p>

A good number of the inscriptions of HM are ended with the pictogram . The phonetic value स SA is the appropriate equivalence for the pictogram.

(viii) Attribution of phonetic value to the pictogram 

<p style="text-align: center;">                ग      ण              ↑      ↻              Ga    Na         </p>	<p style="text-align: right;">             गण              Vt      GAṆA ,              11027         </p>
<p style="text-align: center;">                ग      ण      म्              ↑      ↻      †              Ga    Na    M         </p>	<p style="text-align: right;">             गणम्              Vt      GAṆAM              334      Given to GAṆA.         </p>
<p style="text-align: center;">                अ      ग      ण      ६              ≡      ↑      ↻      ≡≡≡              A      Ga    Na    6         </p>	<p style="text-align: right;">             अगण ६              Vt      Cha GAṆA 6 ;              12549      and GAṆA 6         </p>
<p style="text-align: center;">                ण      ज              ↻      †              Na    Ja         </p>	<p style="text-align: right;">  जन              Vt      JANA.              10142         </p>
<p style="text-align: center;">                य      ण              †      ↻              Ya    Na         </p>	<p style="text-align: right;">             जन              Vt      JANA .              7060         </p>

<p style="text-align: center;"> <span style="margin-right: 2em;">ध</span> <span style="margin-right: 2em;">ऊ</span> <span>ण</span> </p>  <p style="text-align: center;"> <span style="margin-right: 2em;">Dha</span> <span style="margin-right: 2em;">U</span> <span>Na</span> </p>	<p style="text-align: center;">धून</p> <p>Vt      DHŪṆA<sup>11</sup></p> <p style="text-align: center;">10186</p>
<p style="text-align: center;"> <span style="margin-right: 2em;">व</span> <span>ण</span> </p>  <p style="text-align: center;"> <span style="margin-right: 2em;">Va</span> <span>Na</span> </p>	<p style="text-align: center;">वन</p> <p>Vt      VANA.</p> <p style="text-align: center;">12002</p>
<p style="text-align: center;"> <span style="margin-right: 2em;">अ</span> <span style="margin-right: 2em;">ध</span> <span>ण</span> </p>  <p style="text-align: center;"> <span style="margin-right: 2em;">A</span> <span style="margin-right: 2em;">Dha</span> <span>Na</span> </p>	<p style="text-align: center;">अधन</p> <p>Vt      Cha DHANA ;</p> <p style="text-align: center;">11516      and DHANA.</p>
<p style="text-align: center;"> <span style="margin-right: 2em;">ध</span> <span>ण</span> </p>  <p style="text-align: center;"> <span style="margin-right: 2em;">Dha</span> <span>Na</span> </p>	<p style="text-align: center;">धन २</p> <p>Vt      DHANA 2</p> <p style="text-align: center;">P 1-44</p>
<p style="text-align: center;"> <span style="margin-right: 2em;">अ</span> <span style="margin-right: 2em;">व</span> <span>ण</span> </p>  <p style="text-align: center;"> <span style="margin-right: 2em;">A</span> <span style="margin-right: 2em;">Va</span> <span>Na</span> </p>	<p style="text-align: center;">च वन</p> <p>Vt      Cha VANA.</p> <p style="text-align: center;">8650 (a)</p>

<p>अ ध ण म य    A Dha Na Ma Ya</p>	<p>च धनमय  Vt Cha ( and )  10058 DHANAMAYA.</p>
<p>ध य ण म य य    Dha Ya Na Ma Ya Ya</p>	<p>ध्यानमयज  Vt DHYĀNAMAYAJA.  8360 Made by  Dhyānamaya.</p>
<p>ध र्म ण    Dha R-M-Ma Na</p>	<p>धर्मण  Mc<sup>93</sup><sub>13</sub> DHARMMANA.</p>

The pictogram  has the phonetic value ण  
(NA) or न (NA).

(ix) Attribution of phonetic value to the  
pictogram .

<p>अ ध थ</p>  <p>A Dha Th-Tha</p>	<p>अदत्त</p> <p>Vt. a (e) ADATTA. 279</p>
<p>व थ म</p>  <p>Va Th-Tha M-Ma</p>	<p>वर्तमान्</p> <p>Vt VARTTAMĀN. 2177</p>
<p>ध र थ</p>  <p>Dha Ra Th-Tha</p>	<p>धरत्र</p> <p>Vt DHARATRA. 12035</p>
<p>ध थ</p>  <p>Dha Th-Tha</p>	<p>दत्त</p> <p>Ml<sup>109</sup><sub>257</sub> DATTA.</p>

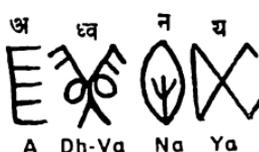
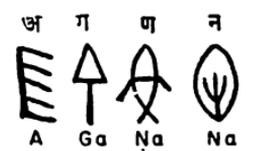
So, THA थ might be the phonetic equivalence of

0.

(x) Attribution of phonetic value to the

pictogram 

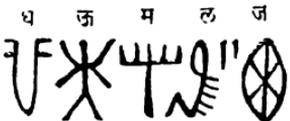
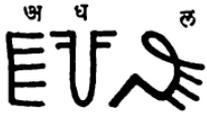
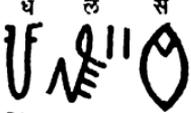
<p style="text-align: center;">ध्व      न</p>  <p style="text-align: center;">Dh-Va</p>  <p style="text-align: center;">Na</p>	<p style="text-align: center;">ध्वन</p> <p>Vt      DHVANA.<sup>12</sup> 1842</p>
<p style="text-align: center;">ध      न</p>  <p style="text-align: center;">Dha</p>  <p style="text-align: center;">Na</p>	<p style="text-align: center;">धन</p> <p>MI<sup>19</sup> 217      DHANA.</p>
<p style="text-align: center;">ध   य   न   न   य   ध</p>  <p style="text-align: center;">Tha</p>  <p style="text-align: center;">Ya</p>  <p style="text-align: center;">Na</p>  <p style="text-align: center;">Na</p>  <p style="text-align: center;">Ya</p>  <p style="text-align: center;">Dha</p>	<p style="text-align: center;">ध्यान-ध्यान</p> <p>Vt      DHYĀNA- 12377      DHYĀNA.</p>
<p style="text-align: center;">अ   न   ध्य</p>  <p style="text-align: center;">A</p>  <p style="text-align: center;">Na</p>  <p style="text-align: center;">Th-Tha</p>	<p style="text-align: center;">आनते</p> <p>Mc 85 139      ĀNARTTA.<sup>13</sup></p>

 <p>अ ध्व न य A Dh-Va Na Ya</p>	<p>अध्वन्य Vt ADHVANYA. 10103</p>
 <p>अ ग ण न A Ga Na Na</p>	<p>अगनेन MI 108 AGANENA 173 (Made) by AGANA.</p>

So it can be concluded that the pictogram

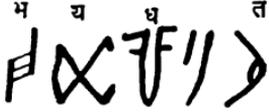
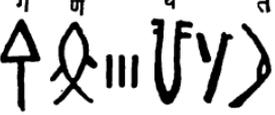
 , has the phonetic value न, NA.

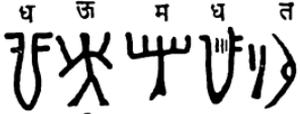
(xi) Attribution of phonetic value to the pictogram .

<p>ध ऊ म ल ज</p>  <p>Dha U Ma La Ja</p>	<p>धूम्रज</p> <p>MI 103 DHŪMRAJA. 10 Made by DHŪMRA.</p>
<p>ध ल</p>  <p>Dha La</p>	<p>धर</p> <p>Vt DHARA. J409</p>
<p>अ ध ल</p>  <p>A Dha La</p>	<p>अधर</p> <p>Vt ADHARA. 10185</p>
<p>ध ऊ ल</p>  <p>Dha Ū La</p>	<p>धूल</p> <p>Vt DHŪLA. 7409</p>
<p>ध ल स</p>  <p>Dha La Sa</p>	<p>धरस्य</p> <p>MI 109 DHARASYA. 232</p>

So ल, LA may be the phonetic equivalence of the pictogram .

(xii) Attribution of phonetic value to the pictogram .

<p>भ य ध त</p>  <p>Bha Ya Dha Ta</p>	<p>Mc 83 BHAYADHRṬA<sup>14</sup> 10 (This is) in the possession of BHAYA.</p>
<p>ध म्म ध त</p>  <p>Dha Mma Dha Ta</p>	<p>Ml 109 DHARMMA- 234 DHRṬA (This is) in the possession of DHARMMA.</p>
<p>ग ण ध त</p>  <p>Ga Na Dha Ta</p>	<p>गणधत Ml 105 GAṆADHRṬA 41 (This is) in the possession of GAṆA.</p>

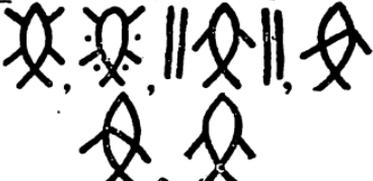
<p style="text-align: center;">ध    ज    म    ध    त</p>  <p style="text-align: center;">Dha   Ū      Ma   Dha   Ta</p>	<p style="text-align: center;">धूमध्रत</p> <p>MI 113 DHŪMADHR̥TA 469 (This is) in the possession of DHŪMA.</p>
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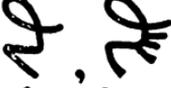
It may be concluded that TA त is the appropriate phonetic value for the pictogram ) .

# -KEY-

PICTOGRAM OF H.M.	Phonetic Value.	PICTOGRAM OF H.M.	Phonetic Value.
	५ अ A		भ BHA
	L उ Ü		४ म MA
	^ ग GA		I ण NA
	{ ज JA		७ घ YA
	५ त TA		{ र RA
	○ थ THA		० व VA
	D ध DHA		J ल LA
	I न NA		५ स SA

It is noteworthy that the pictograms of the phonetic equivalences :-(i) ऊ. ✱ represent ऊर्ध्वबाहुः  $\bar{U}RDHVAB\bar{A}HUH$  (ii) ग  $\text{人}, \text{人}', \text{人}, \text{人}, \text{人}$  represent गतिः  $GATIH$  (iii) ध  $\text{フ}$  represent धारणम्  $DH\bar{A}RANAM$  (iv) र  $\text{V}$  represent रज्जुः  $RAJJUH$  and (v) व  $\text{व}$  represent वहनम्  $VAHANAM$ .

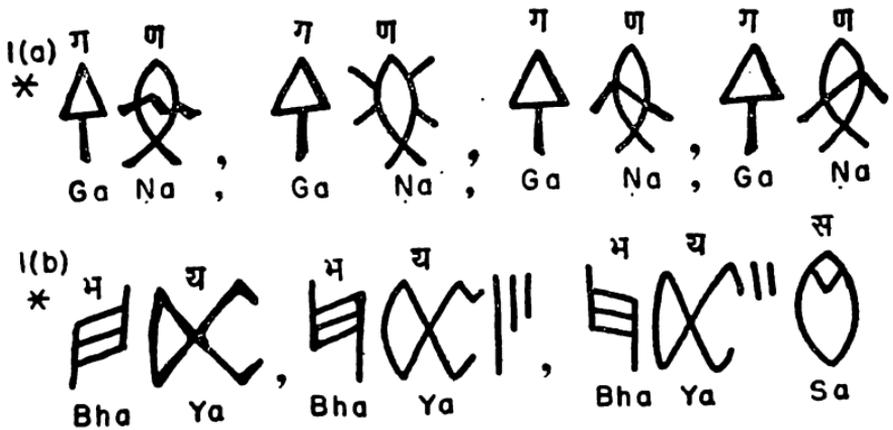
PICTOGRAMS	VARIANTS	PHONETIC VALUE.
		A
		Ū
 		GA
		JA
		NA, NA
		TA
		THA
		DA

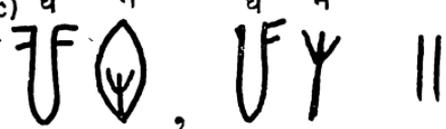
PICTOGRAMS	VARIANTS	PHONETIC VALUE.
		DHA
		NA
		WA, VA
		BHA
		MA
		YA
		RA
		LA
		SA

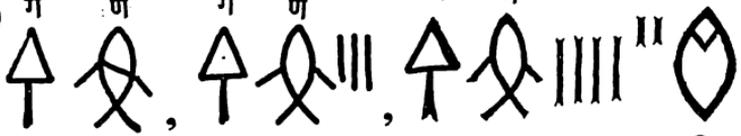
## RESOLUTION OF REPEATING PICTOGRAMS AND DECORATIVE SIGNS.

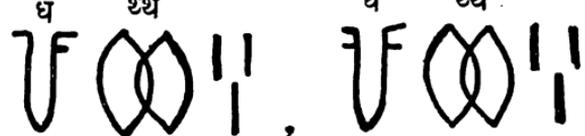
A study based on the above observations (as in A and B) leads to the following conclusions :—

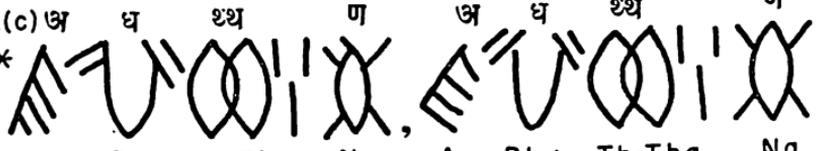
Pictograms with (i) decorative signs, (ii) straight lines or with (iii) unnecessarily repeated variants (most probably for decoration) have not any special meaning. They simply represent the phonetic value of the pictogram itself<sup>15</sup>.

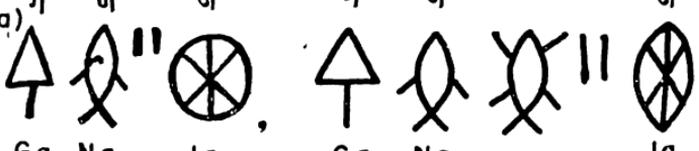


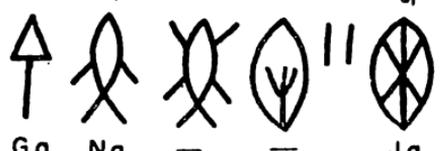
1(c) ध न ध न  
 \*   
 Dha Na, Dha Na

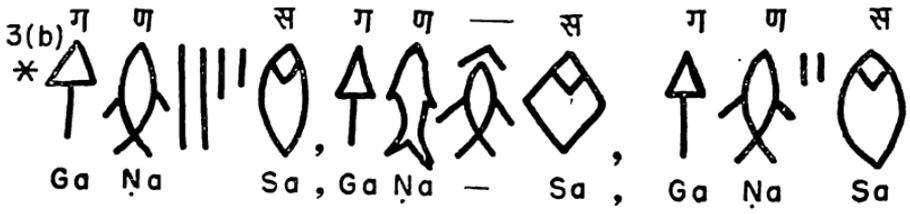
2(a) ग ण ग ण ग ण स  
 \*   
 Ga Na, Ga Na, Ga Na Sa

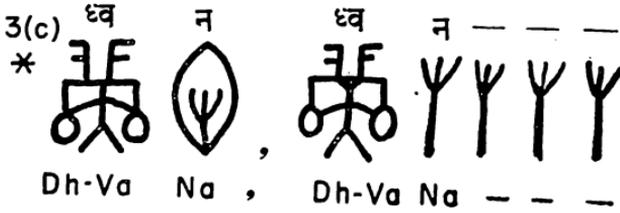
2(b) ध थ ध थ  
 \*   
 Dha Th-Tha, Dha Th-Tha

2(c) अ ध थ ण अ ध थ ण  
 \*   
 A Dha Th-Tha Na, A Dha Th-Tha Na

3(a) ग ण ज ग ण — ज  
 \*   
 Ga Na Ja, Ga Na Ja

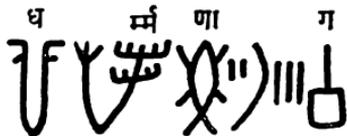
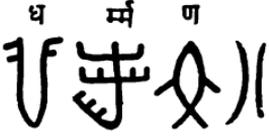
ग ण — — ज  
  
 Ga Na — — Ja

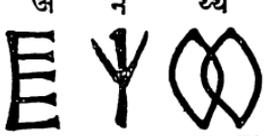
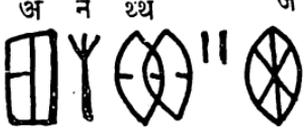
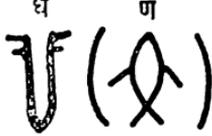
3(b) ग ण स ग ण — स ग ण स  
 \*  Ga Na Sa, Ga Na — Sa, Ga Na Sa

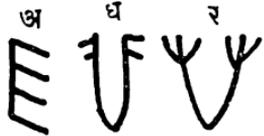
3(c) ध्व न ध्व न — — —  
 \*  Dh-Va Na, Dh-Va Na — — —

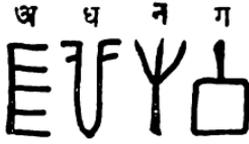
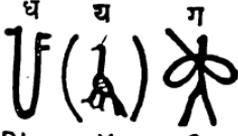
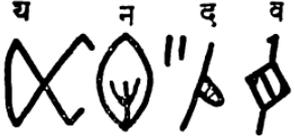
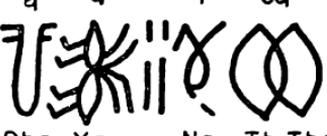
## FURTHER DECIPHERMENTS

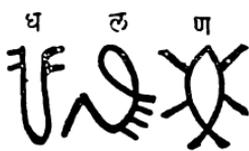
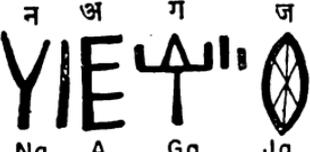
Now if we extend the phonetic equivalences of the pictograms to their variants, it is surprising that the seals will tell some Aryan names (presumably of the merchants, priests or gods).

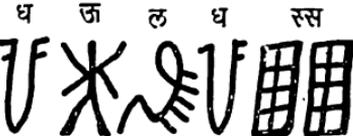
<p>ध र्म णा ग</p>  <p>Dha R-M-Ma Nā Ga</p>	<p>धर्मनाग</p> <p>Mc 89 DHARMMA- 348 NĀGA.</p>
<p>ध र्म ष न</p>  <p>Dha R-M-Ma Na Na</p>	<p>धर्मणेन</p> <p>Mc 88 DHARMMA- 272 NĒNA.</p>
<p>ध र्म ण</p>  <p>Dha R-M-Ma Na</p>	<p>धर्मण</p> <p>Mc 13 DHAR- 13b MMANA<sup>17</sup>.</p>

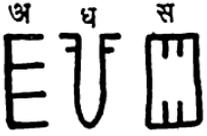
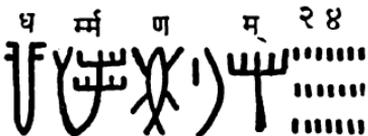
<p>ध र्म ण स</p>  <p>Dha R-M-Ma Na Sa</p>	<p>धर्मणस्य</p> <p>MI 106 DHARMMA- 97 NASYA.</p>
<p>ध र ण</p>  <p>Dha Ra Na</p>	<p>धरण</p> <p>Vt DHARANA. 2728</p>
<p>अ न थ</p>  <p>A Na Th-Tha</p>	<p>आनर्त्त</p> <p>Mc 85 ĀNARTTA. 139</p>
<p>अ न थ ज</p>  <p>A Na Th-Tha Ja</p>	<p>आनर्त्तज</p> <p>Mc 85 ĀNARTTAJA. 147 Made in ĀNARTTA.</p>
<p>ध ण</p>  <p>Dha Na</p>	<p>धन</p> <p>Mc. 82 DHANA. 688</p>

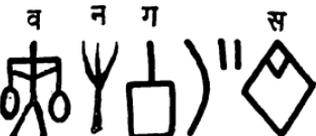
<p>ज      ग</p>  <p>Ja      Ga</p>	<p>गज</p> <p>Mc. 83 GAJA. 5</p>
<p>अ      ध      र</p>  <p>A      Dha      Ra</p>	<p>अधर</p> <p>Vt      ADHARA. 12575</p>
<p>अ      ग      ध      ऊ      म</p>  <p>A      Ga      Dha      U      Ma</p>	<p>अगधूम</p> <p>Vt      AGADHŪMA. 5617</p>
<p>ध      ऊ      म      ग      ज</p>  <p>Dha      Ū      Ma Ga      Ja</p>	<p>धूमगज</p> <p>Mc 95 DHŪMAGAJA. 447</p>
<p>ध      ऊ      र</p>  <p>Dha      Ū      Ra</p>	<p>धुर</p> <p>Ml 129      DHURA<sup>18</sup>. H 2</p>

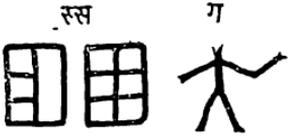
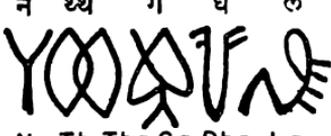
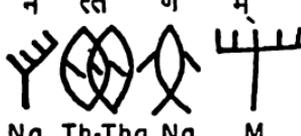
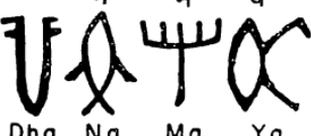
<p>अ ध न ग</p>  <p>A Dha Na Ga</p>	<p>च धनक</p> <p>Vt Cha (and) 10614(a) DHANAKA.</p>
<p>ध य न ज</p>  <p>Dha Ya Na Ja</p>	<p>ध्यानज</p> <p>Mc 82 Made by 681 DHYĀNA.</p>
<p>ध य ग</p>  <p>Dha Ya Ga</p>	<p>ध्वजक</p> <p>Mc 82 DHVAJAKA. 696 (Token)</p>
<p>य न द व</p>  <p>Ya Na Da Va</p>	<p>जनदेव</p> <p>Mc 82 JANADEVVA. 701</p>
<p>ध य न थ्य</p>  <p>Dha Ya Na Th-Tha</p>	<p>नर्तध्वज</p> <p>Mc 83 The seal of 2 NARTTA.</p>

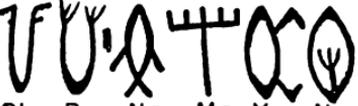
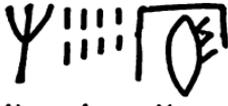
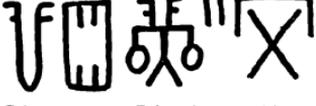
<p>ध ल ण</p>  <p>Dha La Na</p>	<p>धरण Mc 85 DHARAṆA. 104</p>
<p>ग म् न</p>  <p>Ga·M Nā ←</p>	<p>नागम् Mc 85 To NĀGA. 106</p>
<p>ध्व न - य</p>  <p>Dh-Va Na - Yo</p>	<p>ध्वनज Mc 83 DHVANAJA. 23 (Made by DHVANA)</p>
<p>न अ स</p>  <p>Na A Sa</p>	<p>नगस्य Mc 83 NAGASYA. 25</p>
<p>न अ ग ज</p>  <p>Na A Ga Ja</p>	<p>नागज Mc 83 NĀGAJA. 38 Made by NĀGA.</p>

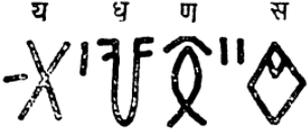
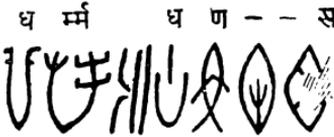
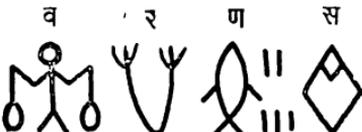
<p>ध ऊ म ण स</p>  <p>Dha U Ma Na Sa</p>	<p>धूमनस्य</p> <p>Mc 83 DHŪMNASYA 48</p>
<p>ध ऊ ल ध र्स</p>  <p>Dha U La Dha Sa Sa</p>	<p>धूलदस्य</p> <p>Mc 83 DHŪLADASYA. 50</p>
<p>न य ध</p>  <p>Na Ya Dha</p>	<p> ध्यान</p> <p>Mc 84 DHYĀNA 55</p>
<p>ध य</p>  <p>Dha Ya</p>	<p>ध्वज</p> <p>Vt DHVAJA-(Seal). G 104</p>
<p>अ न अ स</p>  <p>A Na A Sa</p>	<p>च नगस्य</p> <p>Mc 99 Cha (and) 648 NAGASYA.</p>

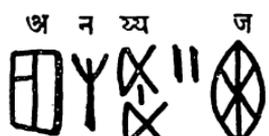
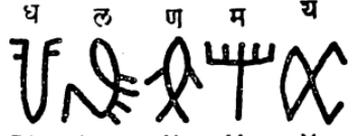
<p>अ ध स            A Dha Sa</p>	<p>अदास          Vt ADĀSA.          10928(a)</p>
<p>न अ स            Na A Sa</p>	<p>नगस्य          Mc 84 NAGASYA.          80</p>
<p>ध र्म ण म् २४            Dha R-M-Ma Na M 24</p>	<p>धर्मणम्          Vt To DHAR-          J579 MMAṆA 24.          Given 24 (articles) to          DHARMMANA.</p>
<p>ज न ग            Ja Na Ga</p>	<p> गणज          Mc 84 Made by GAṆA.          101</p>
<p>ध र्म ण - स            Dha R-M-Ma Na - Sa</p>	<p>धर्मणस्य          Vt DHARMA-          114 NYA.</p>

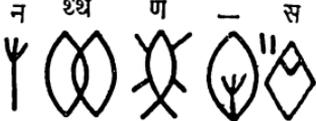
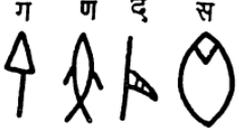
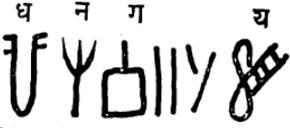
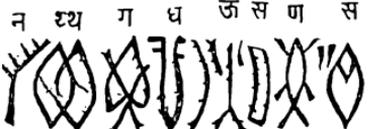
<p style="text-align: center;">भ      य</p>  <p style="text-align: center;">Bha      Ya</p>	<p style="text-align: center;">भय</p> <p>Mc 95    BHAYA. 433</p>
<p style="text-align: center;">ध   न   ग      ज</p>  <p style="text-align: center;">Dha Na Ga      Ja</p>	<p style="text-align: center;">धनगज</p> <p>Mc 96    DHANAGAJA. 521</p>
<p style="text-align: center;">अ      ध्व      अ</p>  <p style="text-align: center;">A      Dh-Va    A</p>	<p style="text-align: center;">अध्वग</p> <p>Mc 97    ADHVAGA. 340</p>
<p style="text-align: center;">व   न   ग      स</p>  <p style="text-align: center;">Va   Na   Ga      Sa</p>	<p style="text-align: center;">वनकस्य</p> <p>Mc 97    VANAKASYA. 569</p>
<p style="text-align: center;">स्स      ग्य</p>  <p style="text-align: center;">Sa Sa    Ga    Ya</p>	<p style="text-align: center;">स्वर्ग</p> <p>Mc 84    SVARGA. 88</p>

<p>स्स      ग</p>  <p>Sa    Sa      Ga</p>	<p>स्वर्ग</p> <p>Mc 84      SVARGA<sup>19</sup>. 72</p>
<p>भ      य      ण</p>  <p>Bha    Ya      Na</p>	<p>भयेन</p> <p>Mc 85    BHAYENA. 142    Made by BHAYA.</p>
<p>न    थ्य    ग    ध    ल</p>  <p>.Na Th-Tha Ga Dha La</p>	<p>नर्त्तक/धर</p> <p>Mc 85    NARTTAKA/ 145      DHARA. Dancer of (the city) DHARA.</p>
<p>न    त्त    ण    म्</p>  <p>Na Th-Tha Na    M</p>	<p>नर्त्तनम्</p> <p>MI 118    To NARTTANA. 5</p>
<p>ध      ण      म      य</p>  <p>Dha    Na      Ma      Ya</p>	<p>धनमय</p> <p>Mc 91    DHANAMAYA. 15a</p>

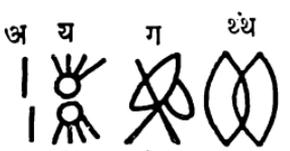
<p>ध न ग ध ज्ञ</p>  <p>Dha Na Ga Dha Ja Ja</p>	<p>धनकध्वज</p> <p>Mc 86 The seal of 160 (the merchant) DHANAKA.</p>
<p>ध र ण म य न</p>  <p>Dha Ra Na Ma Ya Na</p>	<p>धरणमयेन</p> <p>Mc 87 Made by 231 DHARANA- MAYA.</p>
<p>ग ण म य</p>  <p>Ga Na Ma Ya</p>	<p>गणमय</p> <p>Mc 86 GAṆAMAYA. 183</p>
<p>न अ य</p>  <p>Na A Ya</p>	<p>नगज</p> <p>Mc 87 Made by NAGA. 267</p>
<p>ध स ध्व य</p>  <p>Dha Sa Dh-Va Ya</p>	<p>दशध्वज</p> <p>Mc 87 DAŚADHVAJA. 257</p>

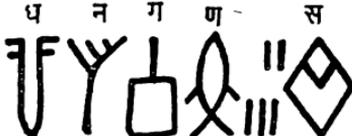
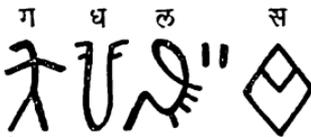
<p>य ध ण स</p>  <p>Ya Dha Na Sa</p>	<p>च धनस्य</p> <p>MI 105 Cha (and) 57 DHANASYA</p>
<p>ध र्म्म ध ण - - स</p>  <p>DhaR·M·MaDhaNa - - Sa</p>	<p>धर्म्म ॥ धनस्य</p> <p>DHARMMADHANASYA MI 106 (This is the token) 104 of the property of DHARMMA</p>
<p>व ण ज</p>  <p>Va Na Ja</p>	<p>वनज</p> <p>Vt VANAJA. 2463 Created by VANA</p>
<p>व र ण स</p>  <p>Va Ra Na Sa</p>	<p>वर्णस्य</p> <p>Vt VARNASYA 7006</p>
<p>ग ज स ण</p>  <p>Ga Ja Sa Na</p>	<p>गजसेन</p> <p>Vt GAJASENA. B101</p>

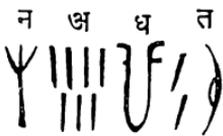
<p>ग ग स</p>  <p>Ga Ga Sa</p>	<p>गगस्य</p> <p>Mc 95 GAGASYA. 435</p>
<p>ध न ग</p>  <p>Dha Na Ga</p>	<p>धनक</p> <p>Mc 98 DHANAKA. 600</p>
<p>अ न य्य ज</p>  <p>A Na Y-Ya Ja</p>	<p>अनार्यज</p> <p>Mc 99 Made by 684 ANĀRYYA</p>
<p>द स ण व</p>  <p>Da Sa Na Va</p>	<p>दशनाभ</p> <p>MI 105 DAŚANĀBHA 67</p>
<p>ध ल ण म य</p>  <p>Dha La Na Ma Ya</p>	<p>धरणमय</p> <p>Mc 88 DHARAṆA- 282 MAYA.</p>

<p>न थ्थ ण - स            Na Th-Tha Ṇa - Sa</p>	<p>नर्त्तनस्य          MI 106 NARTTA-          80 NASYA.</p>
<p>ग ण द स            Ga Ṇa Da Sa</p>	<p>गणदस्य          MI 106 GAṆADASYA.          103</p>
<p>ध न ग य            Dha Na Ga Ya</p>	<p>धनगज          MI 108 DHANAGAJA.          174</p>
<p>ग ज ऊ म ध स            Ga Ja Ū Ma Dha Sa</p>	<p>उमधस्य गज          Vt The eiephant of          J 361 ŪMADHA.          ŪMADHASYA GAJA</p>
<p>न थ्थ ग ध ऊ स ण स            Na Th-Tha Ga Dha Ū Sa Ṇa Sa</p>	<p>नर्त्तक दूषणस्य          MI 103 (The seal) of the          11 Dancer DŪṢAṆA          NARTTAKA DŪṢA-          ṆASYA.</p>

<p>ध ज म ग व</p>  <p>Dha Ū Ma Ga Va</p>	<p>धूमगव</p> <p>MI 105 DHŪMAGAVA. 50</p>
<p>ध स ग स</p>  <p>Dha Sa Ga Sa</p>	<p>दशकस्य</p> <p>MI 111 DAŚAKASYA. 334</p>
<p>ज ग र ध स</p>  <p>Ja Ga Ra Dha Sa</p>	<p> सुधर गज</p> <p>MI 111 SUDHARA- 337 GAJA.</p>
<p>ध म्म अ ज</p>  <p>Dha M-Ma A Ja</p>	<p>धर्मज</p> <p>MI 111 DHARMMAJA. 341 Created by DHARMMA.</p>
<p>न य</p>  <p>Na Ya</p>	<p>जन</p> <p>Mc 82 JANA. 704</p>

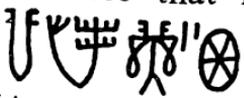
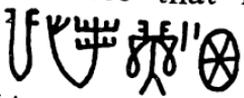
<p>अ य ग थं</p>  <p>A Ya Ga Th-Tha</p>	<p>अजागर्त्त</p> <p>Mc 86 AJĀGARTTA. 204</p>
<p>य स्थ ग ज</p>  <p>Ya S-Ta Ga Ja</p>	<p>अष्टगज</p> <p>Mc 99 AṢṬAGAJA. 651</p>
<p>भ य ध ण म य</p>  <p>BhaYa DhaṆa Ma Ya</p>	<p>भय ॥ धनवान्</p> <p>Mc 88 BHAYA ॥ 273 The merchant.</p>
<p>ध स ग व</p>  <p>Dha Sa Ga Va</p>	<p>दशगव</p> <p>Mc 88 DAŚAGAVA. 283</p>
<p>ध य ल स</p>  <p>Dha Ya La Sa</p>	<p>ध्वजलस्य</p> <p>Mc 88 DAVAJALASYA 288</p>

<p>ध य न ग</p>  <p>Dha Ya Na Ga</p>	<p>नगध्वज</p> <p>Mc 99 The seal of 666 NAGA.</p>
<p>ध न ग ण - स</p>  <p>Dha Na Ga Na Sa</p>	<p>धनघ्नस्य</p> <p>Vt DHANA- 5436 GHNASYA.</p>
<p>ण स य ध</p>  <p>Na Sa Ya Dha ←</p>	<p>ध्वजसेन</p> <p>Vt DHVAJASENA. J 582</p>
<p>ग ध र - स</p>  <p>Ga Dha Ra - Sa</p>	<p>गन्धारस्य</p> <p>Mc 85 GANDHĀ- 131 RASYA.</p>
<p>ग ध ल स</p>  <p>Ga Dha La Sa</p>	<p>गन्धारस्य</p> <p>Mc 86 GANDHĀ- 177 RSYA. <sup>20</sup></p>

<p style="text-align: center;">             व      ल      स                Va    La    Sa         </p>	<p style="text-align: center;">             वलस्य              MI 115    VALASYA.              5576         </p>
<p style="text-align: center;">             अ      ज                A      Ja         </p>	<p style="text-align: center;">             अज              Mc 87    AJA.              261         </p>
<p style="text-align: center;">             न      अ      ध      त                Na    A    Dha    Ta         </p>	<p style="text-align: center;">             नगधृत              Mc 88    NAGADHRṬA              298    (This is) in the              possession of NAGA.         </p>
<p style="text-align: center;">             व      न      ग      ध      त                Va    Na    Ga    Dha    Ta         </p>	<p style="text-align: center;">             वनकधृत              Mc 98    VANAK-              609                      DHRṬA              (This is in the posse-              ssion of VANAKA.         </p>

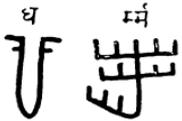
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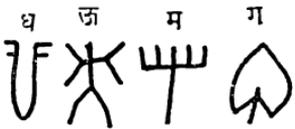
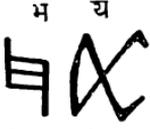
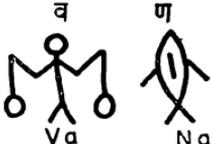
INTERPRETATION

Thus we see that if we put the curious seal  
 MI 58  equivalent to DHARMMA-  
 178  DHVAJA (The token of the wine merchant  
 DHARMMA) the Harappan seals may be explained  
 in the framework of Aryan onomatology with  
 inflexions and affixes, which is the fundamental  
 characteristic of the inscriptions of the seals of  
 ancient world.

According to the contents of the inscriptions, the  
 seals can be divided in five categories.

1. The seals inscribed with only personal names  
 most probably, of the merchants and the important  
 persons of the cities .—

<p style="text-align: center;">ध            र्म्</p>  <p style="text-align: center;">Dha            R-M-Ma</p>	<p style="text-align: center;">धर्म्म</p> <p>Mc 103    DHARMMA.</p> <p style="text-align: center;">7</p>
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<p>ध ऊ म ग</p>  <p>Dha Ū Ma Ga</p>	<p>धूमक</p> <p>Mc 95 DHŪMAKA. 453</p>
<p>ग ण</p>  <p>Ga Ṇa</p>	<p>गण</p> <p>MI 109 GAṆA. 254</p>
<p>ध ऊ म</p>  <p>Dha Ū Ma</p>	<p>धूम</p> <p>Mc 102 DHŪMA. 10a</p>
<p>भ य</p>  <p>Bha Ya</p>	<p>भय</p> <p>Mc 87 BHAYA. 244</p>
<p>व ण</p>  <p>Va Ṇa</p>	<p>वन</p> <p>Vt VANA 12002</p>

Though there are more than five hundred inscribed seals, the total number of the names of the merchants and important persons inscribed on the seals are a few.

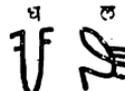
2. The seals inscribed with place names :—

(i)

<p>Dha Ra Dha Na</p>  <p>Sa Dha Ya</p>	<p>धरधनस्य ध्वज</p> <p>Mc 82 DHARADHA- 687 NASYA DHVAJA. (The token (seal) of the wealth (property) of DHARA.)</p>
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(ii)

<p>Dha, Ya Dha Na</p>  <p>Dha Ra</p>	<p>धर धनध्वज</p> <p>MI 106 DHARA 93 DHANADHVAJA. DHARA : the seal of property.</p>
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Most probably,  ,  , or  ,  
Dha Ra , Dha Ra Na , Dha La

are the names of a city as evidenced from the

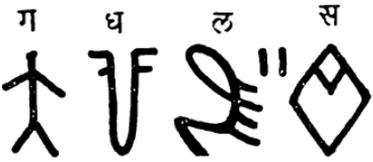
inscriptions Mc 84  
99

ध र ण ग र स  
 Dha Ra Na Ga Ra Sa CITY Symbol

= धरनगरस्य DHARANAGARASYA.

The pictograms  is most probably a city symbol as found on the coins of Ujjain.

The seals beginning with  are generally found from Mohenjodaro. So I can not check the temptation of thinking that the site Mohenjodaro was the ancient city known by DHARA or DHARAᅇA.

<p>                    ग ध ल स                  Ga Dha La Sa             </p>	<p>                 गन्धार                  Mc 86 (The seal) of                  177 GANDHĀR. 20             </p>
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The word गधल has strong similarity with the word Gadara (Gandhāra) of Behistan inscription or Gadariya (Gandhārian) inscribed on the south Tomb inscription at Persepolis. So गधलस on the Harappan

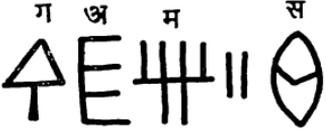
inscription can be equated with गन्धारस्य GANDHĀ-RASYA which is the genitive of the place name गन्धार GANDHĀR.

3. The seals inscribed with names with inflexions and affixes

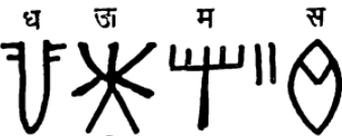
a. (i)

 <p>Dha R-M-Ma Sc</p>	<p>धर्मस्य Mc 84 DHARM- 102 MASYA. (The seal) of DHARMMA.</p>
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a. (ii)

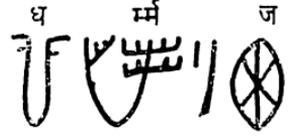
 <p>Ga A Ma Sa</p>	<p>ग्रामस्य Mc 95 GRĀMASYA. 485 (The seal) of the village.</p>
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a. (iii)

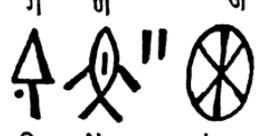
 <p>Dha Ū Ma Sa</p>	<p>धूमस्य Mc 95 DHŪMASYA. 476 (The seal) of DHUMA.</p>
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Etc.

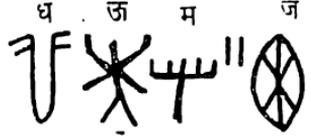
b. (i)

<p>ध      र्म      ज</p>  <p>Dha R-M-Ma      Ja</p>	<p>धर्मज</p> <p>Mc 84 DHARMMAJA. 65 (This is) created by DHARMMA.</p>
--	---

b. (ii)

<p>ग      ण      ज</p>  <p>Ga      Ṇa      Ja</p>	<p>गणज</p> <p>Ml 111 GAṆAJA. 327 (This is) created by GAṆA.</p>
--	---

b. (iii)

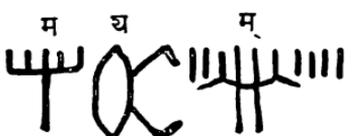
<p>ध      ज      म      ज</p>  <p>Dha      Ū      Ma      Ja</p>	<p>धूमज</p> <p>Mc 86 DHŪMAJA. 168 (This is) created by DHŪMA.</p>
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b. (iv)

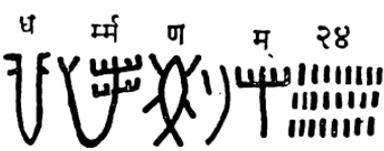
<p>अ      न      थथ      ज</p>  <p>A      Na Th-Tha      Ja</p>	<p>आनर्त्तज</p> <p>Mc 85 ĀNARTTAJA. 147 (This is) made in ĀNARTTA.</p>
--	--

Etc.

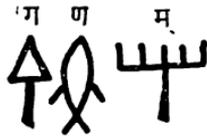
c. (i)

 <p style="text-align: center;">म      य      म्</p> <p style="text-align: center;">Ma      Ya      M</p>	<p>मयम्</p> <p>Mc 88    MAYAM.</p> <p>319      (Given) to MAYA.</p>
--	---

c. (ii)

 <p style="text-align: center;">ध    र्म    ण    म्    २४</p> <p style="text-align: center;">Dha R-M-Ma Na      M    24</p>	<p>धर्मणम्</p> <p>Vt      DHARMMANAM.</p> <p>J579    (Given) 24 (articles)</p> <p>          to DHARMMANA.</p>
---	---

c. (iii)

 <p style="text-align: center;">ग    ण    म्</p> <p style="text-align: center;">Ga Na      M</p>	<p>गणम्</p> <p>Vt      GANAM. (Given)</p> <p>10060            to GANA.</p>
---	--

Etc.

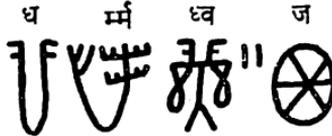
4. The seals inscribed with names, titles and other particulars.

(a) The inscriptions—

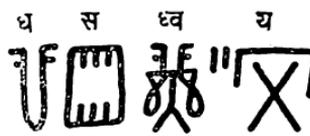
 <p>Dha Ya</p>	 <p>Dha A</p>	 <p>Dh-Va Ja</p>	 <p>Dh-Va Ya</p>	 <p>Dh-Va Ya</p>	 <p>Dha Ja</p>
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etc. most probably means चिह्नम् token or seal.

a. (i)

<p>ध र्म ध्व ज</p>  <p>Dha R-M-Ma Dh-Va Ja</p>	<p>धर्मध्वज</p> <p>MI 58 178</p> <p>DHARMMADH-VAJA. (The seal) of DHARMMA.</p>
---	--

a. (ii)

<p>ध स ध्व य</p>  <p>Dha Sa Dh-Va Ya</p>	<p>दशध्वज</p> <p>Mc 87 257</p> <p>DAŚADHVAJA. (The seal) of DAŚA.</p>
---	---

a. (iii)

<p>ध अ भ य</p>  <p>Dha A Bha Ya</p>	<p>भयध्वज</p> <p>Mc 86 163</p> <p>BHAYADH-VAJA. (The seal) of BHAYA.</p>
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a. (iv)

<p>ध य न थ</p>  <p>Dha Ya Na Th-Tha</p>	<p>नर्तध्वज</p> <p>Mc 83 2</p> <p>NARTTADH-VAJA. (The seal) of NARTTA.</p>
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Etc.

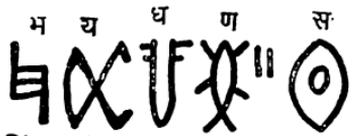
V. 2. (i) [ धरधनस्य ध्वज the seal of the property of DHARA ] and V. 2. (ii) [ धरधनध्वज DHARA : the seal of property] are also in this category.

(b) The inscriptions inscribed with the words equivalent to wealth and merchant.

b. (i)

<p>भ य ध ण म य</p>  <p>Bha Ya Dha Na Ma Ya</p>	<p>भय ॥ धनवान</p> <p>Mc 97 BHAYA—the 541 merchant <sup>22</sup></p>
--	---

b. (ii)

<p>भ य ध ण स</p>  <p>Bha Ya Dha Na Sa</p>	<p>भयधनस्य</p> <p>Mc 88 BHAYADHA- 281 NASYA. (The token) of the property of BHAYA.</p>
--	--

b. (iii)

<p>भ य ध ण स</p>  <p>Bha Ya Dha Na Sa</p>	<p>भयधनस्य</p> <p>Mc 97 BHAYADHA- 583 NASYA. (The token) of the property of BHAYA.</p>
--	--

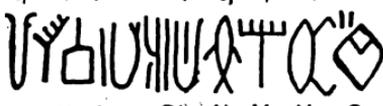
b. (iv)

<p>भ य ध ण स</p>  <p>Bha Ya Dha Na Sa</p>	<p>भयधनस्य MI 113 BHAYADHA- 456 NASYA. (The token) of the property of BHAYA.</p>
--	--

b. (v)

<p>अ ग ध ण</p>  <p>A Ga Dha Na</p>	<p>अगधन MI 109 AGADHANA. 251 The property of AGA.</p>
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b. (vi)

<p>ध न ग ध ण म य स</p>  <p>DhaNaGa Dha Na Ma Ya Sa</p>	<p>धनक ॥ धनवतः MI 113 DHANAKA. 429 (The seal) of the merchant DHANAKA ॥ DHANAVA- TAH.</p>
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b. (vii)

<p>ध र्म्म ध ण - स</p> <p>Dha R·M·Ma Dha Na - Sa</p>	<p>धर्मधनस्य DHARMMADHNASYA MI 106 (The token) of 104 the property of DHARMMA.</p>
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(c) Inscriptions inscribed with the words गात्रक, नक्तक, गज etc.

c. (i)

<p>ध स ध ण - र्सस ग त्त ग</p> <p>Dha Sa Dha Na - Sa Ga Ta Ta Ga</p>	<p>दशधनस्य गात्रक Mc 99 (This is) a fastener 654 of the body of the property of DAŚA. DAŚADHA- NASYA GĀTRAKA.</p>
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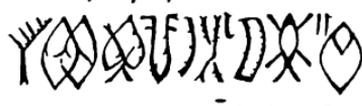
c. (ii)

<p style="text-align: center;">ग ण - स ग ल्त ग</p>  <p style="text-align: center;">Ga - Ṇa - Sa Gaṭaṭa Ga</p>	<p style="text-align: center;">गणस्य गात्रक</p> <p>Mc 95 (This is) a fastener 436 of the body of the property of GAṆA. GAṆASYA GĀTRAKA.</p>
--	---

c. (iii)

<p style="text-align: center;">न थ्य ग ध ल</p>  <p style="text-align: center;">Na Th-Tha Ga Dha La</p>	<p style="text-align: center;">नर्त्तक धर</p> <p>Mc 85 NARTTAKA 145 DHARA. (The) Dancer (of the city) DHARA.</p>
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c. (iv)

<p style="text-align: center;">न थ्य ग ध ङ स ण स</p>  <p style="text-align: center;">Na Th-Tha Ga Dha Ū Sa Ṇa Sa</p>	<p style="text-align: center;">नर्त्तक दूषणस्य</p> <p>MI 103 (The seal) of the 11 dancer DUṢAṆA. NARTTAKA DŪṢAṆASYA.</p>
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c. (v)

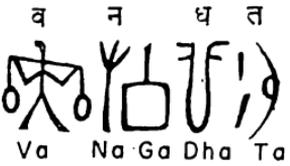
<p style="text-align: center;"> <span style="margin-right: 1em;">ग</span> <span style="margin-right: 1em;">ज</span> <span style="margin-right: 1em;">ञ</span> <span style="margin-right: 1em;">म</span> <span style="margin-right: 1em;">ध</span> <span>स</span> </p>  <p style="text-align: center;"> <span style="margin-right: 1em;">Ga</span> <span style="margin-right: 1em;">Ja</span> <span style="margin-right: 1em;">U</span> <span style="margin-right: 1em;">Ma</span> <span style="margin-right: 1em;">Dha</span> <span>Sa</span> </p>	<p style="text-align: center;">उमधस्य गज</p> <p>Vt            The elephant of  J 361        ŪMADHA.                   ŪMADHASYA                   GAJA.</p>
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(d) Inscriptions inscribed with the word धृत्  
DHR̥TA.

d. (i)

<p style="text-align: center;"> <span style="margin-right: 1em;">न</span> <span style="margin-right: 1em;">अ</span> <span style="margin-right: 1em;">ध</span> <span>त</span> </p>  <p style="text-align: center;"> <span style="margin-right: 1em;">Na</span> <span style="margin-right: 1em;">A</span> <span style="margin-right: 1em;">Dha</span> <span>To</span> </p>	<p style="text-align: center;">नगधृत्</p> <p>Mc 88        NAGADHR̥TA.  298            (This is) in the                   possession of                   NAGA.</p>
--	--

d. (ii)

 <p>Va Na Ga Dha Ta</p>	<p>वनकधृत</p> <p>Mc 98 VANAKA- 609 DHṚTA. (This is) in the possession of VANAKA.</p>
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All the inscriptions placed in B. (xii) may be included in this group.

5. (i) At Mohenjodaro the inscription on the blade axe P1 CXXVI, 2 and at Chanhudaro the inscription on the blade axe P1 LXXIV, 1 are very interesting. According to Mackay the numbers on those blade axes refer to the number of the implements in its owner's possession rather than to the weight of the object on which they are placed. This can easily be demonstrated from the decipherment.



Fig. 1

नव १६ ।

New (axes) 19.

Blade Axe :—Further excavations at Mohenjodaro Vol. II, Pl CXXVI, 2.

(ii) The explanation of the inscription of the blade axe P1 LXXIV, 2 [Chanhudaro Excavations] will not be difficult.

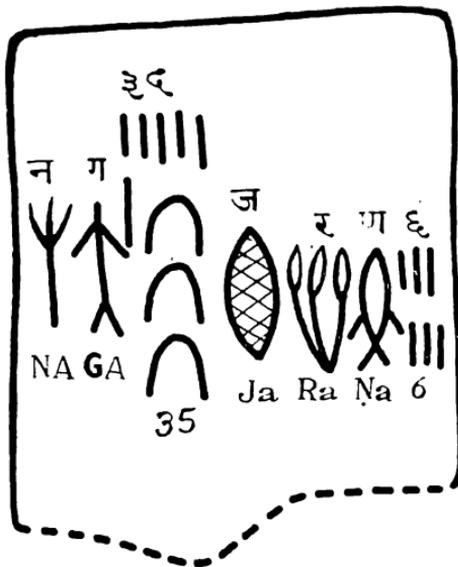
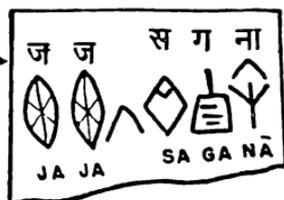
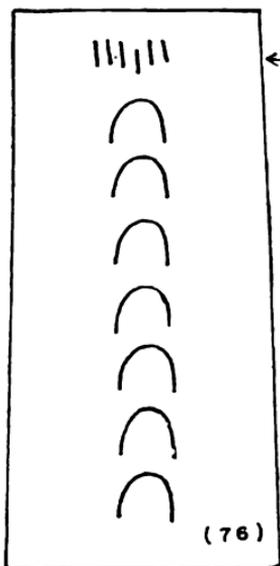


Fig 2

नग ३५ जरण ६  
 (The axes of) NĀGA  
 [are] 35.  
 (Among them) old  
 (axes) 6.  
 [जरण—Old, decayed, A  
 Sans. Eng. Dic. P. 413]

Blade Axe ; Chanhudaro Excavation P1 LXXIV, 2.

(ii) The inscription on the blade axe excavated from Mohenjodaro [Mackay—Further excavations at Mohenjodaro Vol II, P1 CXVIII] is also very interesting to explain.



MACKEY :—  
 FURTHER EXCAVATION  
 AT MOHENJODARO VOL. II  
 PLATE. CXXXVI

नागस्य जय ७६

NĀGASYA JAYA 76

The word जज [ or जय ] has most probably the same origin with the Avestan word *zaya*, which means weapon or implement [A complete Dictionary of the Avesta language—Kavasji Edalji Kanga P. 201]

So the inscription on the blade axe can be translated as :—

नागस्य जय ७६

The weapons [or implements] of NĀGA-76.

So far I have tried to decipher the Harappan inscriptions from an explicit assumption that the Harappans used to write in Indo-European dialects, exposing myself to the well-known charge of being one of the so called Pan-Aryans. May I humbly submit that to the best of my ability I have tried to steer clear of the various biases in this field.

The most venerable ( as well as the safest ) way now-a-days seems to be to proceed by the path prescribed by the archæologists and to treat the subject in the frame-work of philological structures strictly excluding those of the Indo-Europeans. Unfortunately, however, this way has not yielded much result and decipherers with patience and imagination cannot be blamed for their efforts to try to decipher these inscriptions, basing their premises solely on philological grounds. Needless to add, this does not mean an abdication of their responsibility to try to relate every decipherment to the findings of the latest archæological excavations. Unless this is done, philology and archæology will be working at cross purposes and research in the totality of Harappa

culture will continue to suffer.

Archæologists may rightly claim the sole credit for the exposition of Harappa culture. It is to their labours that the Indian pre-history and proto-history owe their origins. By their systematic field-work they have laid the foundations for building an integrated history of the civilization that flourished in this sub-continent.

I am hesitant, therefore, to advance my line of work which may go counter to the well-known archæological conclusion in this field, *viz.*, that the material cultures of the Harappans and the Indo-European-speaking people are absolutely different. The hub of the question is whether there is any archæological discontinuity between the Indus and the subsequent Gangetic Valley Civilizations—one in the Chalcolithic and the other beginning the Iron age.

To my mind, it is just as well possible that the migrating Harappans might have come to learn the techniques of iron-smelting by themselves or by a chance contact with another community and thereby

have caused a transformation of their own material culture in the Gangetic plain.

It seems to me that we have been for long suffering from an implicit notion that the Indo-European-speaking people entered the sub-continent when the Harappans had already vanished from the scene. This leads to the tendency among some of the archæologists to fix the date of the arrival of the Indo-European-speaking people in the sub-continent arbitrarily at a time convenient to every theory as it comes, resulting even in such a proposition that the time of arrival of the Aryans is somewhere around 1200 B. C. !

On this question, we would do well to remember that there is no conclusive archæological evidence in favour of such a position. On the other hand, literary and other evidences are not at all wanting which support a view contradicting the above diametrically.

My philological line of work, it is obvious, has not tolerated the wear and tear of scientific tests. It cannot claim for itself any certainty with scientific

precision because of some inherent difficulties quite well-known in this field.

Moreover, promising methods like the principles of grid and modern statistical analysis have not been applied on these scripts directly to construct the language scientifically from some well-defined premises. This exposes the theory to a possible hazardous error like the famous '*Zusun*' in Hittite hieroglyphs.

And so, it would be too early to immediately discard once for all the archæological lore of decades. Let us assign that task to posterity, ploughing our own furrows in the meanwhile.

## REFERENCES

1. Dhara. "N. of a Vasu, MBh ; of a follower of the Pāṇḍavas, ib.; of the king of the tortoises ; L. ; of the father of Padmaprabha (6th Arhat of pres. Ava-sarpiṇī)". A Sans. Eng. Dic. M. Monier-Williams, P. 510, Tod says that Māndhātā was a king of Central India whose capitals were Dhâr and Ujain. A.R.A.S.I. 1871-72 p. 163.
2. ध्वज :— 'चिह्नम् । इति मेदिनी ।' शब्दकल्पद्रुमः ।  
'the sign of any trade (esp/of a distillery or tavern) & business there carried on. Mn IV, 85.' A Sans. Eng. Dic. M. Monier-Williams.
3. Dhūka—Wind, rouge, time—A. Sans. Eng. Dic. M. Monier-Williams.
4. Agama—A mountain, a tree. A Sans. Eng. Dic. M. Monier-Williams, p. 4.

5. Agada : 1. A medicine, a medicinal drug.  
 2. Health freedom from disease,  
 Prin. V. S. Apte's, 'The prac. Sans.  
 Eng. Dic. Vol. 1, p. 12. 'aggada m.  
 Skr. agada, drug, antidote". Sak-  
 Studies—Sten Konow p. 114.

Gada : The younger brother of Kṛishna—  
 Willson p. 280.

6. Aga—1. A tree. 2. A mountain. 3. A snake  
 4. The sun. Prin. V. S. Apte's, 'The practical  
 Sans. Eng. Dic. Vol. 1, p. 11.

7. Pischel § 285. (C. G. P. L.)

8. Bhaga—"N. of an Āditya (bestowing wealth  
 and presiding over love and marriage, brother  
 of the Dawn, regent of the Nakshatra Uttara-  
 Phalgunī, Yāska enumerates him among the  
 divinities of the highest sphere ; according to  
 a later legend his eyes were destroyed by  
 Rudra) ib. & c & c, the Nakshatra U°—Ph°,  
 MBh. vi, 81 ; the sun, ib. iii, 146 ; the moon,  
 L ; N. of Rudra, MBh", Monier-Williams.

A Sans. Eng. Dic. p. 273. Bhaga :—“They are the sons of the Viśpati, the lord of creation. They are symbolized in the seven Ādityas (sons of Aditi), Mitra, Aryaman, Bhaga, Varuṇa, Dakṣa, Aṁsa, and Vivasvān (Ṛgveda, X, 72, 9) and the seven priests, Hotṛ, Potṛ, Neṣṭṛ, Agnīdh, Prośāstṛ, Adhvaryu and Brahman”. Ṛgveda and the Indus Valley Civilization—Dr. Buddha Prakash, p. 35. Bhaga—“A Vedic god and Āditya, regarded chiefly as dispensing fortune ; brother of Ushas”. Antiquities of India. Barnett p. 19.

9. One seal with the inscription Gagasa was obtained from Bhita Excavation. Excavation at Bhita”. A.R. A.S.I. 1911-12 p. 57.
10. Dhama—One inscription inscribed with Amātya Dhamadevasya (Amātya Dharmadevasya) was obtained from Bhita Excavation. A.R. A.S.I. 1911-12. Excavation at Bhita p. 53. Dhama—“m. (only L.) the moon ; N. of Brahman ; of Yama ; of Kṛishṇa”. M. Monier-Williams. A Sans. Eng. Dic. p. 509.

11. Dhūṇa—"Shaken, agitated, distressed by heat or thirst." A Sans. Eng. Dic. Monier-Williams p. 517.
12. Dhvana—N. of a wind, sound. tune, N. of a man—A Sans. Eng. Dic. M. Monier-Williams.
13. Ānartta—"3 N. of king of the solar race 4 N. of a country or its inhabitants, or its king. (It was also called Saurāṣṭra and may be identified with the modern Kathewar. Dwāarakā was its capital, which was called Ānartanagarī. There was also an important town called Valabhī—which afterwards became its capital. The celebrated Tīrtha called Prabhās also stood in the same peninsula). V.S. Apte's, 'The practical Sans. Eng. Dic.' Vol. 1. P. 334.

"Anattā" is the last of the "three characteristics (ti-lakkhaṇa)" or the general characteristics (Sāmañña-lakkhaṇa) of the Universe and every thing in it.

... .. Etymologically, anattā consists of the negative prefix an plus attā ( cf. Vedic Sans-

kṛita ātman ). The truth of Anattā by Dr. G. P. Malalasekēra ( prefatory Note ).

14. Kṛita-Kata. Mahendale P. 2. ( H.G.I.P. ).

15. The seal nos of these seals are given successively below—

(i) (a) Ml 109 ; Mc 86 ; Vt 11027 ; Vt 3961  
254            161

(b) Vt 10176 ; Mc 97 ; Mc 84.  
551            60

(c) Ml 109 ; Mc 85.  
217            137

(ii) (a) Ml 110 ; Ml 112 ; Ml 104.  
201            365            19

(b) Ml 112 ; Ml 109.  
366            257

(c) Ml 114 ; Ml 114.  
529            530

(iii) (a) Ml 111 ; Vt 11381 ; Ml 106.  
327                            88

(b) Ml 115 ; Mc 96 ; Mc 85.  
551            523            132

(c) Vt 1842 ; Mc 88.

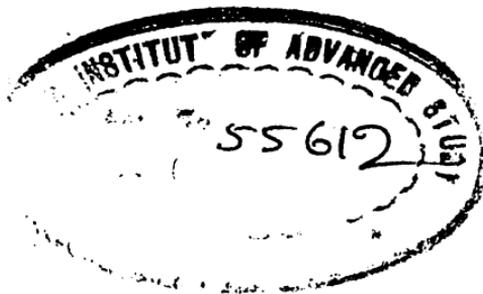
322

16. The vertical straight-lines are mysterious in nature. In some seals, these are used probably for pauses, decorative signs and numbers. But in some cases these signs have phonetic value equivalent to अ, A.
17. Dharmmaṇa :—वृत्तभेदः—शब्दकल्पद्रुमः ।
18. Dhura :—A yoke, burden, load :—A Sans. Eng. Dic. M. Monier-Williams.
19. Mahendale—p. 22 (H.G.I.P.)
20. Gadhara, Gadhala :—An interesting thing is to be stated here that there are words like Gadhara, Gadhala in the inscriptions of HM. These words, I think, mean Gandhār. “There are five columns at Behistan containing the inscriptions of the Achæmenid King Darius, the great.....In the Column I Darius gives a list of 25 countries ‘that came to’ him. In this list we find two names that are Indian viz., Ga(n) dara or Gandhara and Qatagus or

Sattagydia.” Achæmenids in India by Sudhakar Chattopadyaya, p. 6. “The South Tomb at Persepolis is usually assigned to Artaxerxes II (404—395-B.C.) on artistic grounds. Here is an inscription,” a portion of which reads—“iam Qataguvia (this is a Sattygidian); iyam Ga(n) dariya (This is a Gandharian),; iyam Hi(n) duviya (this is a Hi(n)du)” *ibid.* p. 14. The word Gadariya means Gandhāriya. So, Gandhara in the Harappan inscriptions has strong similarity with Indo-Iranian word Gadarīya which means an inhabitant of Gandhāra.

21. Pischel § 299 (C.G.P.L.)
22. The phonetic value ḌHA (𑖇) is more appropriate to pictogram  .

\* Quoted from ‘Forgotten Scripts’ Gordon C. H.





*Photograph : MOHENJODARO : DANCING GIRL.*

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