STUDY OF THE INDUS SCRIPT: A BI-LINGUAL APPROACH

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1. The Indus Script has so far defied all attempts at decipherment. Indeed many feel that the task is hopeless in view of the limited inscriptive material available for study (about 3500 lines), the extreme brevity of the texts (the average length being 5 signs only), and the absence of bi-lingual texts. However, recent developments in the field provide some basis for cautious optimism. The number of texts is steadily increasing with the discovery of more Harappan sites. Critical editions of the texts and computerised concordances and tables have been recently published facilitating further studies (Parpola et al 1973, 1979; Mahadevan 1977). A photographic edition of the original seals and other inscribed objects is being compiled by an international team of scholars with assistance from UNESCO (A. Parpola, B.K. Thapar and M.R. Mughal, in prep.). There is no reason to doubt that further advances will be made when more scholars are attracted to the field with the availability of original texts through reliable editions.

2. Objective studies of the Indus Script have generally proceeded on the basis of frequency counts of the signs and statistical-positional analyses to determine the characteristics of individual signs, to identify sign groups corresponding to words and phrases and to recognise probable syntactical patterns (Hunter, 1934, Knorozov et al, 1965, Parpola et al, 1969). The direction of writing of the script has been determined with certainty and some progress has been achieved in word division (B.B. Lal 1966, Mahadevan 1977, 1978 with previous references). While these studies constitute the essential groundwork necessary to gain an insight into the nature of the script and the typology of the underlying language, they have not so far led to the actual decipherment of the Indus Script. Experience of earlier successful decipherments of other ancient scripts tells us that after the initial routine analytical work has been completed, it is necessary to look for some external clues 'to break the code' and to get at the meaning of the texts and the phonetic values of the signs. Cartouches containing kings' names in the Egyptian Script, repetitve use of royal titles in the cuneiform Persian and the identification of place names in the Linear-B Mycenaean script are famous examples of such clues leading to their decipherment. One cannot avoid speculation at this stage. Guesses must be made and the wrong ones discarded by a process of trial and error. The only requirements are an open mind and a readiness to acknowledge one's mistakes when these are demonstrated.
3. There are three types of objective external evidence that bear on the
character of the Harappan Civilization and the likely contents of the inscrip­tions in the Indus Script:

(i) Material remains from the excavated sites;
(ii) Pictorial motifs associated with the inscriptions on seals and sealings; and
(iii) Ideograms which are recognizable in the Indus Script.

It is outside the scope of the present paper to deal with the first two types of evidence, which have been exhaustively described in the original excavation reports on Mohenjodaro (Marshall 1931, Mackay 1937), Harappa (Vats 1940) and Chanhudaro (Mackay 1943), and subsequently analysed by competent scholars in the field (Piggott 1950, Wheeler 1960, Fairservis 1967, Alchins 1968). The purpose of the present paper is to draw attention to the possibility of utilising the ideograms in the Indus Script to serve as clues to understand the probable contents of the inscriptions.

4. The Indus Script is basically pictographic in character, even though it is so stylised in the mature form presently available to us that it is not always easy to recognise the objects depicted by many of the signs. However, one has only to inspect the sign lists to see that even in the mature Indus Script there are a large number of signs which are recognizably pictographic (Parpola 1973, 1979; Mahadevan 1977).

5. We know from a study of other ancient pictographic scripts that a picture can be used in three different ways in writing:

(i) As a pictogram directly representing the intended object;
(ii) As an ideogram representing ideas and concepts associated with, or suggested by the object depicted in the pictogram; or
(iii) As a phonogram, that is, as a phonetic sign, which may represent either a whole word, or a syllable or a single phone. A word can be indicated directly by the picture as in the case of a concrete object, or by homonymy as in the case of an abstract concept or an action difficult to pictorialise. Syllables (which may be of any pattern, CV, VC or CVC) or single phones (consonants or vowels) may be indicated either through acrophony (that is, from the initial sounds of the word indicated by the object) or by rebus writing (which employs pictures to represent homonymic words).

6. No viable writing system can be built up through the exclusive use of direct pictograms. Ancient pictographic scripts generally employed a mixture of pictograms, ideograms and phonetic signs. The Indus Script is unlikely to be an exception in this respect. Formal analysis of the script leads us to the same conclusion. The large number of signs rules out the possibility that the script is alphabetic. The Indus Script could be a syllabary; but the extreme brevity of the texts is more consistent with an ideographic rather than purely phonetic script. The fixed relative order of most
of the signs as demonstrated by the Soviet scholars indicates that the signs stand for words rather than mere phonetic units (Knorozov et al. 1965). In a syllabary, one should expect a much greater freedom in the distribution of signs within the texts, which is certainly not the case with the Indus Script.

Another important clue is the behaviour of sets of independent signs which are graphically similar, but differentiated by slight but deliberate graphic modifications (e.g. the ‘fish’ group of signs). Signs within each such set have very similar positional and functional characteristics, a pattern which is wholly inconsistent with their interpretation as phonetic syllables sharing the same consonants but with different vowels (as proposed by Hunter 1934, S.R. Rao 1973 and others). The behaviour of such sets of signs can be accounted for only on the basis of their being groups of ideograms with similar but not identical meanings. There is thus a strong probability that the Indus Script consists of word-signs with a fair amount of ideographic content. The presence of phonetic signs based on the rebus principle is also quite probable.

7. Once we recognise the presence of ideograms in the Indus Script, we have in them a visual aid to furnish us with clues to their probable meanings. To begin with, we can select the more easily recognizable ideograms whose pictographic nature is obvious. Such ideograms can then be studied in the light of the following sets of graphic parallels, viz.,

(i) Similar pictograms or ideograms from contemporary pictographic scripts; and
(ii) Symbolism from the later Indian traditions.

8. The Indus Script does not appear to be closely related to the other known contemporary pictographic scripts. Not only are most of the signs graphically independent, but the sign sequences are also unique in the Indus Script proving that the Harappan language is not related to the languages written in the other pictographic scripts. However it is in the very nature of pictographic writing that there should be some similarity in the mode of depiction of the same object even in unrelated scripts. Such similarities of the Indus Signs with those in the Egyptian, Sumerian, Proto-Elamite and the ancient Chinese scripts have been pointed out by Langdon (in Marshall 1931), Hunter (1934), Heras (1953) and others. These parallels can be utilized to recognise the objects depicted by the Indus pictograms. The parallels can further serve to indicate the probable ideographic significance of the signs. In the latter case, however, one has to be more cautious as the range of ideographic meanings will depend on the social and cultural milieu of the users of the script. For example, the pictogram of a ‘star’ may signify ideographically a ‘god’ only in a society which practised some form of astral religion. It is also necessary to point out that pictograms or ideograms (even when borrowed from one script to another) will not have the same phonetic values in the two scripts. It is in any case possible to comprehend the pictographic or the ideographic significance of a sign without the intervention of a linguistic medium.
9. The suggested use of parallels from the later times is based, in general, on the well-known continuity of Indian historical and religious traditions and, in particular, on the demonstrated links with the later Indian culture on the basis of the material remains and the pictorial motifs of the Harappan civilization. One can readily cite the examples of the svastika, phallic symbolism, veneration of the pipal tree and the serpent, which have survived to this day in the composite Hindu religious practices. It is therefore not unreasonable to suppose that even when the Indus Script ceased to be a writing system, individual ideograms survived in the later tradition and evolved into conventional symbols of various kinds. Such survivals may consist of iconographic elements and religious symbols, royal insignia, emblems on coins and seals, heraldic signs of the nobility, corporate symbols, and totem signs of clans and tribes, etc.

10. The Indian historical tradition has come down to us in two main linguistic streams, viz., Indo-Aryan and Dravidian. It is my view that in looking for parallels to understand the Harappan civilization, it is possible, and even necessary, to search both Indo-Aryan and Dravidian sources for survivals. I have dealt with this matter in greater detail in one of my earlier papers (Mahadevan 1972). To recapitulate briefly, the bi-lingual approach is based on the following premises:

(i) The Harappan seals, in accordance with universal usage, give the names and titles of the owners. It is likely that due to prolonged bi-lingualism and racial fusion in the sub-continent, the more important Harappan names and titles passed into the later Indo-Aryan languages as loan-words or loan-translations.

(ii) It is possible that the later symbols derived from the Indus ideograms were continued to be associated, even though in a conventional manner, with the later forms of the older names and titles represented originally by the Indus ideograms.

(iii) It should be possible to undertake a comparison of such traditional symbols resembling the signs of the Indus Script and names and concepts associated with them in the Indian historical tradition, in an attempt to establish the original ideographic meanings of the signs.

(iv) The results should not be inconsistent with those obtained from a formal textual analysis of the inscriptions.

11. The advantage of the method of bi-lingual parallels is that it is not necessary to make any a priori assumption about the linguistic affinity of the Harappan language, since ideograms, as mentioned above, can be directly understood without phonetization. The bi-lingual parallels will help us to comprehend broadly the original meanings of the ideograms and also confirm the validity of such deductions on the basis of the ancient and strongly persistent traditions. I also wish to emphasise the limitations of the method, which is dependent on random survivals and uncertain interpretations of symbols. The diversity of the later Indian traditions would
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preclude us from assigning any specific phonetic values to the ideograms of the Indus Script. I however feel that when pursued with due circum-pection and caution, the bi-lingual parallels may lead to accumulation of evidence indicating the probable affinity of the Harappan language as well as the general meaning or contents of the texts.

12. I proceed to illustrate the method with the example of a sign

(No.171 in sign-list, Mahadevan 1977). This pictogram appears to represent some kind of a weapon or tool with a toothed head and a long handle. It resembles a 'trident', though the variants recorded in the texts have four or more 'teeth' (Mahadevan 1977: 788). The close graphic similarity of the sign with the Sumerian ideogram gal 'great' was noticed quite early (Langdon in Marshall 1931:454, Hunter 1934:209). The probability that the sign in the Indus Script is also an ideogram with a similar meaning is suggested by the considerations that (a) the sign functions grammatically as an attribute, and (b) it is very often found before the 'horned person' sign

(No. 8 in sign-list, Mahadevan 1977), a self-evident ideogram indicating a divine, royal or eminent personage as seen from its variants (Mahadevan 1977: 785). Consequently the paired ideograms 'trident horned person' occurring 40 times in the texts (Mahadevan 1977: 171-73) have been interpreted by many scholars as a title meaning broadly a 'great divinity or personage' (Heras 1953:264, Knorozov 1965:20, Gurov 1968:44, Parpola et al. 1969:15, Mahadevan 1970:195). The Finnish scholars even drew attention to the parallelism with the later concept of Śiva's trident. But they could not pursue this line of reasoning further as they identified the object depicted by this pictogram as a kind of flower (ixora) and sought to derive its meaning and phonetic value by the method of homonymy. If however the analogy of 'trident' is pursued further, we get an important and wholly independent corroboration of the probable meaning of this ideogram. The most characteristic of the symbolic attributes of Śiva is the 'trident'. Hence the names like Śūlia, Śūladhara, Śūlapāṇi and other equivalents. It is significant that the most characteristic verbal attribute of Śiva is the epithet 'great' as evidenced by names like Mahādeva, Maheṣa, Maheśvara, Parameśvara etc. We can thus set up the following parallelism from the later Indian tradition:

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\begin{align*}
\text{TRIDENT-GOD} & \rightarrow \text{GREAT-GOD} \\
\rightarrow \text{TRIDENT} & \rightarrow \text{GREAT} \\
\text{Śūla-deva} & \rightarrow \text{Mahā-deva} \\
\text{Śūla} & \rightarrow \text{mahā}
\end{align*}
\]
The suggestion made here is as follows: The Indus ideogram survived as a symbol in later times and its association with the meaning ‘great’ was also remembered. When Śiva evolved as the ‘great god’ of the Hindu pantheon, he also acquired this symbolic attribute, which itself evolved into a weapon (trident) in his hands. The Indian religious tradition has thus preserved in this case the ancient and hitherto unsuspected connection between the symbolism of the ‘trident’ and its original signification, ‘great’. This parallelism provides a wholly independent corroboration of the meaning of the ideogram already suggested by its positional and functional characteristics in the texts as well as by its close graphic similarity with the corresponding Sumerian ideogram with the same meaning. Here is a three-way control on the meaning of the Indus ideogram, which merits serious consideration.

13. Two other aspects of the suggested parallelism deserve notice. The reason why the corresponding pictogram in the Sumerian script was given the ideographic value ‘great’ is unknown. However, the parallelism would hold good irrespective of the true nature of the object originally depicted by the pictograms in the Indus and the Sumerian scripts. As mentioned earlier, the evolution of the Indus pictogram into a symbol representing a weapon (‘trident’) might well have been a post-Harappan phenomenon influenced by its association with Śiva. It is also not necessary that the paired ideograms under consideration referred exclusively to a divine entity in the Indus texts. There is no need to infer from them the presence of Śiva or proto-Śiva in the Harappan pantheon. It is probable that the title was in general use by the Harappan ruling classes (priests, nobles, etc.) in exactly the same way as the titles deva and mahādeva were also used as royal epithets or even as ordinary personal names in later historical times.

REFERENCES


