

PLACE SIGNS IN THE INDUS SCRIPT

IRAVATHAM MAHADEVAN

Paper read at the

V INTERNATIONAL CONFERENCE—SEMINAR OF TAMIL STUDIES

MADURAI INDIA

5—10 *January* 1981

PLACE SIGNS IN THE INDUS SCRIPT

by

Iravatham Mahadevan

1.1 This paper presents a revised version of my earlier and tentative interpretation of some of the signs of the Indus Script, which appear to be ideograms representing the 'city' and its major constituent parts (**Dravidian Parallels in Proto-Indian Script**, Journal of Tamil Studies, Vol. 2, No. 1, 1970:157).

1.2 The interpretations proposed in the present paper are based on certain assumptions regarding the nature of the Indus Script and its probable linguistic affinities. While it is not possible to go into these wider and still unresolved questions within the brief scope of this paper, it may still be useful to summarise, at least axiomatically, the assumptions which are basic to the present model:

- (i) Like other early pictographic scripts of the Bronze Age, the Indus Script also appears to be a mixed writing system, consisting of ideographic signs with word values and phonetic signs with word or syllabic values.
- (ii) The Indus Script still remains undeciphered and we do not yet have any clues to recognize the phonetic signs in the script.
- (iii) It is therefore more profitable in the present state of our knowledge of the script to concentrate on signs which appear **prima facie** to be ideograms depicting clearly recognizable objects or concepts.
- (iv) Ideograms are picture-signs which represent not merely the concrete objects shown in the pictures, but also any idea or concept associated with, or suggested by such objects. Ideograms, by definition, cannot be phoneticised, but possess the advantage of being understood directly. Thus if their meaning or significance can somehow be recognized, it may still become possible to comprehend the context of the inscriptions in which such ideograms occur.

- (v) Ideograms in the Indus Script may be recognized by the following lines of evidence:
- (a) Self-evident pictograms of clearly recognizable objects or concepts.
 - (b) Graphic parallels from early pictographic scripts.
 - (c) Linguistic and historical parallels from later Indian traditions which may be expected to have preserved elements of the Harappan civilization. Such evidence may be available from both Indo-Aryan and Dravidian sources and can be explained on the basis of the substratum influence of the Harappan language and culture.
 - (d) Textual analysis based on frequency and distribution of signs and their functional characteristics.
- (vi) There are several converging lines of evidence to indicate that the language of the Indus Script is probably Dravidian. It is therefore legitimate, at least as a working hypothesis, to search for Dravidian parallels to ascertain the probable meaning of the ideograms and to determine the broad linguistic and historical context of the inscriptions. It is however necessary to emphasise that the interpretations proposed here do not amount to a decipherment of the Indus Script. The ideographic identifications are still tentative and the proposed Dravidian parallels are frankly speculative. The objective of the exercise is to seek meaningful and coherent patterns in the inscriptions, which would hopefully lead to accumulation of evidence and point to the direction of further progress.

2.1 Before I proceed to deal with the individual signs standing for 'city' and related concepts, it is relevant to introduce the notion that the basic uniformity in Harappan town-planning as revealed by archaeological excavations is but a reflection of the Harappan world view. A typical Harappan city is a meticulously planned and highly conscious architectural creation with grid-like streets oriented towards the four cardinal directions and with a fortified citadel on a high artificial terrace in the west dominating the lower city to the east. Judging from the public character of the large buildings found within the citadel at Mohenjodaro, there is little doubt that the citadel was the seat of authority and the power centre in the Harappan polity. While the Indus civilization was unique in many respects, archaeological evidence is not inconsistent with the notion that it shared the world view of contemporary hieratic city states of the Bronze Age. After reviewing the evidence,

Mortimer Wheeler has concluded that "the general indication of a combined kingly and priestly rule fits the habit of the third Millennium" (**The Indus Civilization**, 1966:18). Joseph Campbell has pointed out how the form and concept of the hieratic city state, the city of God, conceived as a 'mesocosm' or 'sociological middle cosmos' (that is, as an earthly imitation of the cosmic order of the macrocosm) emerged as a seminal concept in the Tigris-Euphrates region towards the end of the Fourth Millennium B. C. and spread eastwards and westwards along the trails of the earlier Neolithic cultures, carrying with it "the wonderful, life-organizing assemblage of ideas and principles including those of kingship, mathematics and calendrical astronomy" to inspire the later civilizations of Egypt, Crete, the Indus Valley, China and possibly even Peru and Middle America. Campbell has also drawn pointed attention to the conception of the walled city symbolised by the design of the 'Quartered Circle' and has linked it to the earlier ceramic designs of circles, cross, rosette and svastika of the Late Neolithic period (**Primitive Mythology**, 1960:144).

2.2 It seems therefore likely that the major concepts around which the Harappan city was organized and which were faithfully reflected in its architecture, would also figure prominently in the inscriptions of the period. Judging from parallels found in contemporary pictographic scripts, it is also probable that important places and institutions like city, palace, temple, etc. would be represented by ideograms rather than by phonetic signs in the Indus Script.

2.3 Place signs in pictographic scripts tend to assume characteristic rectangular or circular shapes representing enclosures and plans or elevations of structures of various kinds. A careful study of the graphic variants of the signs in the Indus Script has shown that place signs in this script generally exhibit three equivalent forms, namely, rectangular, rhomboid and oval (Mahadevan, **The Indus Script**, 1977:785). It appears that the acute pressure of space on seals caused the evolution of forms from rectangular to rhomboid and oval shapes conforming to the general pattern of tall and narrow signs in the Indus Script.

2.4 Textual analysis of the Indus inscriptions provides further clues to the identification of place signs in this script. In accordance with universal usage, seal texts are likely to contain the owners' names. We know from later historical inscriptions, especially in the Dravidian languages, that place names precede personal names. Many of the Indus texts begin with one or the other of some standard opening formulae or phrases which appear to be regularly placed before names but which are too few to be part of personal names. Hence the opening phrases of the texts are likely to contain place names. This supposition receives further confirmation from the appearance of the small super-script suffixes accompanying the place signs and functioning like grammatical particles (inflections or case-endings) connecting the preceding place signs with the succeeding parts of the texts contain-

ing personal names. Since however the same opening phrases are found at all major sites, they cannot be identified with the name of any particular Harappan city. The place signs must then refer to important places or institutions present in every major Harappan city, for example, citadel, lower city, palace, temple, granary etc.

3. Ideogram for 'city':

3.1 A place sign which can be identified easily and with confidence is the 'Quartered Circle', precisely identical with the Egyptian ideogram for 'city' 'town' or 'village'. Fig. 1 compares the Egyptian and the Indus forms of the sign. (References to sources for illustrations are grouped together at the end of the paper).

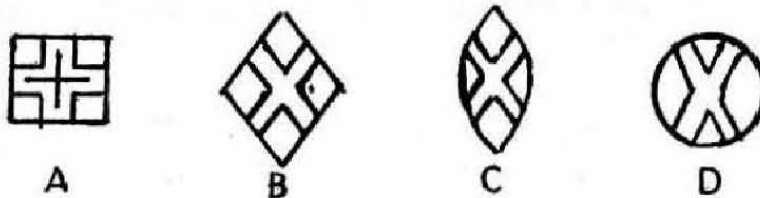


Fig. 1. Ideograms for 'City'

The signs illustrated in Fig. 1 are basically pictograms depicting an 'enclosure' with four 'quarters' or 'blocks' of the 'city' formed by X-shaped, intersecting 'cross-roads'. While the Egyptian ideogram (Fig. 1D) is always circular in shape, the corresponding Indus ideogram assumes characteristic rectangular (1A), rhomboid (1B) or oval (1C) shapes. The rectangular design shown in Fig. 1A does not occur as a sign in the inscriptions, but appears as a pictographic motif on some of the square stamp seals without texts. It is also likely that the 'Quartered Circle' motif is the basic component of the characteristic Harappan ceramic design of the intersecting circles (variants of this design are illustrated in *A Study of the Harappan Pottery*, Manchanda, 1972: 347). If this presumption is true, we can interpret this famous ceramic design as representing the 'City of Four Quarters' or at a deeper level, as symbolising the Cosmic Order governing the 'World of Four Quarters or Regions.'

3.2 It is interesting that Old Tamil has preserved an expression for 'city' which seems specifically to connote the idea of a *planned* settlement and etymologically connected with the word for 'order, regularity.'

paaLi: (Ta.): temple town, city, town of an agricultural tract, hermitage.
*(DED 3383).

paaLi: (Ka.): row, line, regularity, regular order or way, method, rule.

paadi: (Te.): Justice, propriety, nature, quality,

paali: (skt.): row, line, range.

(DED 3384)

(*DED : **Dravidian Etymological Dictionary**, Burrow and Emeneau, Oxford, 1961.)

I have earlier drawn attention to the legends connected with the ancient name of **paaLi** in Old Tamil works (**Dravidian Parallels**, 3.14). The remote ancestors of the Velir stored gold in their city called **paaLi** (**Akam**, 375). The city was surrounded by walls which shone like copper (**Akam**, 372). The city was near a hill called **eeL-il** (lit., 'Seven Houses'; **Akam**, 152.) These references seem to imply that **paaLi** may be a much more ancient place than its later namesake located in Konkanam to the northwest of the Tamil Country traditionally associated with the Velir (**Dravidian parallels**, Excursus A). Indeed **paaLi** may represent not only the concepts of planned city or orderly government (DED 3383 and 3384) but also the Cosmic Order itself, ideas which take us to the Harappan times and even beyond.

3.3 There is an ancient tradition that the Chalukyas of Vatapi sported a flag called **paali-dhvaja** which, according to the records mentioning it, was the insignia of supreme dominion or overlordship. **Aadipuraana** (Skt.), of Jina Senacharya, the preceptor of the Rashtrakuta King, Amoghavarsha I (814-870 A.D.), explains that **paali-dhvaja** did not mean any particular kind of flag, but denoted an array of flags in rows and lines in the four directions (Mahalingam, T. V., **South Indian Polity**, 88). It appears that this explanation is merely based on the meaning of **paali** ('row, line') after the real significance of the flag was forgotten. However the preservation of the detail about the 'four directions' reveals that the flag probably featured originally a motif based on the 'City of Four Quarters.'

3.4 There is an even more interesting survival of the concept of the 'City of Four Quarters' in Old Tamil Tradition. Madurai, the Tamil City par excellence, was sometimes referred to as **naaṅ-maada-k-kuudal** (Kali., 92:65), literally 'the Junction of Four Terraces' (so interpreted by Naccinarkkiniyar, **Pre-Pallavan Tamil Index**). The expression seems to be an exact description of the concept of the 'City of Four Quarters' as graphically depicted by the Indus ideogram (Fig. 1.).

4. Ideogram for 'palace'

4.1 The Egyptian ideogram or determinative for 'Palace' and the corresponding Indus ideographic variants are illustrated in Fig. 2.

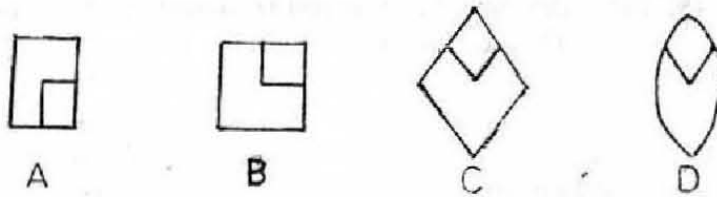


Fig. 2. Ideograms for 'Palace'

The pictogram depicts in plan a 'house' within an 'enclosure' and with a large 'courtyard' in front. The Egyptian ideogram or determinative (2A) is always rectangular but has variants showing the 'house' in any of the four corners of the 'enclosure' and has the meanings 'castle, mansion, palace, temple, or tomb.' The corresponding Indus ideogram occurs with the usual variant forms, namely rectangular (2B), rhomboid (2C) and oval (2D) shapes. By a lucky chance, the exact Egyptian form is found preserved as the opening sign of a clay seal impression from Kalibangan (2B). It is certain that the graphic variants shown in Fig. 2B, C and D have the same meaning as they occur in identical texts as illustrated in Fig. 3.

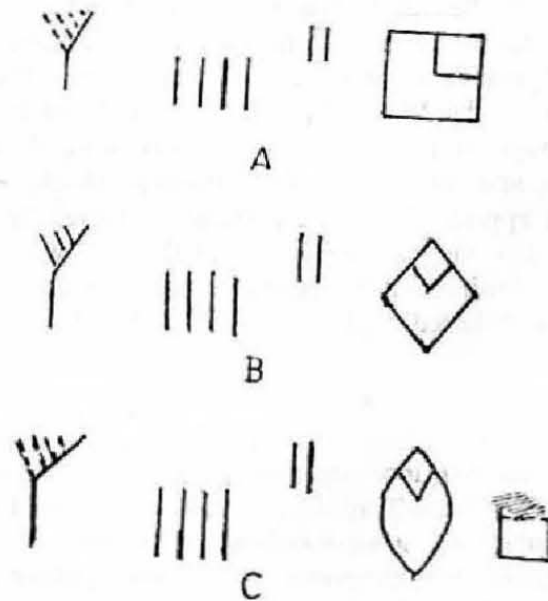


Fig. 3. Texts Commencing with 'Palace' Ideogram

4.2 It is instructive to compare the morphography of the indus ideograms for 'city' and 'palace' (Fig.4).

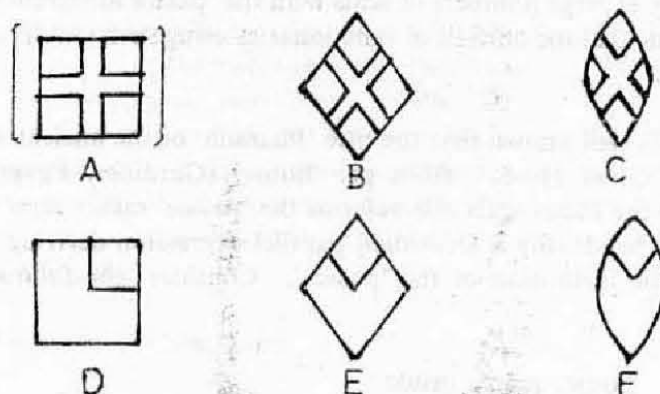


Fig. 4. Comparison of 'City' and 'Palace' ideograms

The upper line in the figure shows the graphic variations of the 'city' sign (A,B,C) while the lower line depicts the corresponding forms of the 'palace' sign (D,E,F). If the graphic design of the forms in the upper line can be regarded as representing the 'City of Four Quarters', the design of the forms in the lower line can be interpreted as depicting *the* Quarter, that is, the 'Principal Quarter' of the city, which in the Harappan context can be none other than the citadel, the most prominent and dominant quarter of the Harappan city. Viewed in this manner, my earlier interpretation of the ideogram as representing the citadel is probably not far off the mark (*Dravidian Parallels*, 3.12). However I no longer accept the Finnish identification of the sign as representing a 'conch' in view of the evidence presented above relating to the morphology of the sign. I now consider that the sign may represent either the 'palace', or in a more extended sense, the 'citadel complex' (within whose area the palace and the temple must have been situated). In either case, this sign represents the seat of authority or the power centre in the Harappan polity.

4.3 This deduction receives strong confirmation from textual analysis. The 'palace' ideogram is by far the most frequent opening sign in the initial position in the texts, suggesting that it represents the most important institution in the Harappan polity. It is therefore very satisfying to find morphographic and ideographic evidence to equate the sign with the 'palace', or more generally with the palace-temple-citadel complex constituting the seat of authority in the Harappan polity. It is remarkable that authority in the Harappan polity is indicated by an impersonal ideogram referring to the 'palace' rather than to a 'king'. Perhaps Harappan rulership was oligarchic. In any case we can interpret the seal-texts commencing with this sign as referring to officials or functionaries acting in the name of the 'palace'. It is of course not necessary that these officials resided in the palace or within the citadel. The presence of large and even palatial houses in the city outside the citadel

and the discovery of large numbers of seals with the 'palace' ideogram from the lower city would indicate that the officials or functionaries using such seals resided in various parts of the city.

4.4 It is well known that the title 'Pharaoh' of the ancient Egyptian rulers literally meant 'Great House', from **pr**: 'house' (Gardiner, *Egyptian Grammar*, 1973:75). Since the Indus seals also refer to the 'palace' rather than to a 'king,' a search was made to identify a Dravidian parallel expression deriving the concept of rulership from the institution of the 'palace'. Consider the following entries in DED 8:

- aka-m**: house, place, inside
- aka-ttu**: within, in the house
- aka-tt-aaN**: master of the house, householder

According to old Tamil tradition, Akattiyān (Skt., Agastya) was a sage who was the progenitor of the Tamil race and language and was the leader of the Velir migration from the north into the Tamil country (M. Raghava Iyengar, *Veelhir-vara-laaTu*, 1964, with references to Old Tamil Works; see also my *Dravidian Parallels*, Excursus A). In the light of the parallels from Egyptian usage and the Indus ideogram, it is perhaps possible to derive **akattiyāN** from **aka-ttu** with the meaning of 'insider' or 'he of the (Great) House'. I do not of course suggest that Akattiyān was the name of a historical person or even of a dynasty. But as the name of the eponymous ancestor of the Tamils of remote antiquity, the expression may well have referred to a ruling class with its authority centred 'inside' a palace-temple-citadel complex.

4.5 The identification proposed above can be corroborated from textual evidence. The most frequent opening in the Indus texts is the 'palace' sign, and the most frequent terminal sign is the 'jar' sign (Mahadevan, *The Indus Script*, 1977, sign list, no. 342). I have suggested elsewhere that the 'jar' sign is a pictogram depicting a 'sacrificial vessel' and ideographically representing the concept of 'priest'. (Mahadevan, *Terminal Ideograms in the Indus Script*, Seminar on Harappan Archaeology, 1979, in press). The most ancient word for 'priest' in Dravidian is probably to be derived from the root **veelh** 'to pray' (DED 4548) and 'to perform sacrifices' (DED 4561). However even by the time of the Sangam Age (around the turn of the Christian Era), this primary meaning seems to have been forgotten and the noun **veelh** came to mean 'a petty ruler, chief' (DED 4562), as a result of semantic shift from 'priest-ruler to ruler'. The juxtaposition of the signs for 'palace' (**aka-ttu**) and 'jar' / 'priest' (**veelh**) in the Indus texts reminds us of the following legends:

- (a) Akattiyān (Agastya) was born miraculously from a 'jar' and was hence known as the 'jar-born' (Kuta-muni, Kumbha - Sambhava etc.). This ancient myth is found even in the Rigveda (vii:33).

- (b) Akattiyān led a migration of the eighteen families of the Velir from the north into the Tamil Country (Naccinarkkiniyar on **Tolkaappiyam, paayiTam, porulh., 34**)

The evidence collected above makes it likely that the 'palace' ideogram followed by a super-script suffix at the commencement of the Indus texts corresponds approximately to the Dravidian expression **aka-ttu** with the meaning 'of the (Great) House or Palace', and used attributively with the names of persons or institutions connected with the palace.

5. Ideograms for 'enclosure'

5.1 There seem to be two different ideograms in the Indus Script with the broad sense of 'enclosure', both with Egyptian graphic parallels.

5.2 Fig. 5 illustrates one of these ideograms.

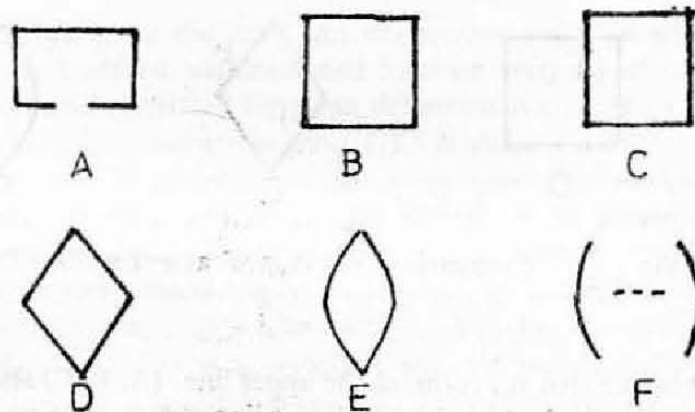


Fig. 5. Ideograms for 'Enclosure'

Fig. 5A is the Egyptian ideogram or determinative for a 'house'. It depicts the plan of a 'house' showing the 'outer walls' and the 'entrance'. Fig 5B is one of the variant signs in the Proto-Sinaitic Semitic Script (C. 1800—1500 B.C) depicting a 'house' (**beth**) and used as a phonetic sign with the value **b**. It is generally considered to be derived from the Egyptian 'house' sign; but an independent origin cannot be ruled out in view of the simplicity of the design ('four walls.') The corresponding Indus ideogram shows the usual variations of rectangular (5C), rhomboid (5D) and oval (5E) shapes. The equivalence of these three forms can be established from parallel texts. The pair of 'brackets' illustrated in Fig. 5F does not occur as an independent sign, but only as a ligatured element in compound signs. It is probable that the 'brackets' are derived from splitting up the oval form in Fig. 5E in two equal halves for accommodating other signs in between to form ligatures. Rhomboid or oval forms are also used to form ligatures with other signs placed within the

outline or enclosure. It is noteworthy that this ideogram occurs more often in combination with other signs than alone. Thus it appears to function as an attribute to names of persons or institutions to indicate that they belonged to an 'enclosure'.

5.3 The nature of the 'enclosure' can be inferred from a comparison of the morphography of the 'palace' and 'enclosure' signs (Fig. 6).

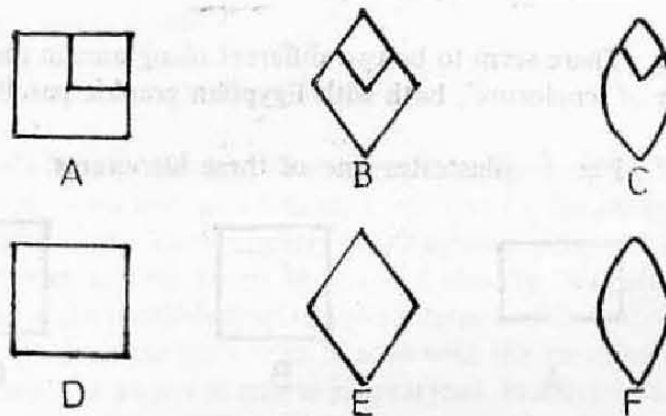


Fig. 6. Comparison of 'Palace' and 'Enclosure' ideograms

It is seen that the forms in the upper line (A, B, C) show the 'palace' within an 'enclosure' while the forms in the lower line (D, E, F) show the 'enclosure' alone without the 'palace'. Thus the meaning of the ideogram in the lower line appears to be 'enclosure around the palace'. It is probably used as an attribute of institutions within the fortified citadel and of persons in the service of the palace or other institutions within the palace - temple - citadel complex.

5.4 Old Tamil literature has several words for palace servants or attendants derived from **aka-ttu** or **aka-mpu** meaning 'inside (fort, palace or house)'. Some examples are **aka-tt-ooN** (DED 8), **aka-tt-adimai**, **aka-tt-adiyaalh**, **aka-ttonhdu**, **akampadi** etc. (Tamil Lexicon). From this evidence it appears likely that while the 'palace' sign (Fig. 2) was associated with the ruling classes, the 'enclosure' sign (Fig. 5) related to minor functionaries like palace servants and attendants.

5.5 Another type of 'enclosure' is depicted by the ideograms illustrated in Fig. 7.

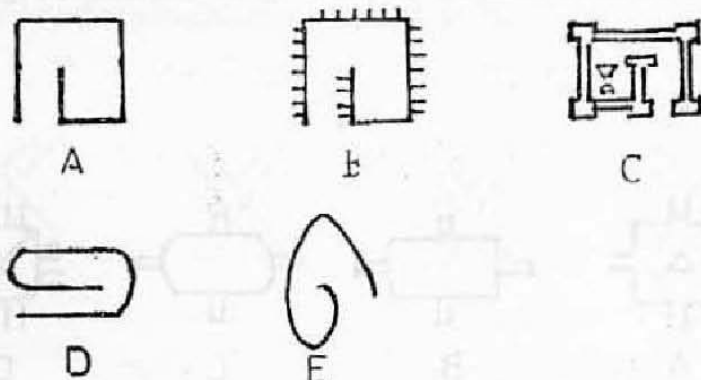


Fig. 7. Ideograms for 'Enclosed Courtyard'

Fig. 7A is the Egyptian uni-consonantal sign with the phonetic value **h**. Fig. 7D is a cursive variant found in some early Egyptian inscriptions. Fig. 7B and 7C are other related Egyptian determinatives or ideograms representing walled enclosures. The Indus ideogram (7E) is closely related to the Egyptian curved variant (7D). Pictographically the signs appear to represent an 'enclosure' with a narrow, restricted entry or passage formed by the overlapping of the surrounding walls. This motif is probably very ancient deriving from Neolithic wooden palisades or reed shelters around human settlements or cattlepens. The broad sense of the Indus ideogram may be similar to Egyptian, that is, some kind of an enclosure or enclosed courtyard or area associated with the palace.

5.6 The whorl-like shape of the Indus ideogram suggests the appropriate Dravidian 'enclosure' words looking to the root **cuuL** 'to surround, encompass' (DED 2223). The selection of this root is also influenced by the fact that Old Tamil literature has preserved several cognates with the specific meanings of (i) areas or places 'around' a palace, (ii) Counsellors or ministers who 'surround' the king, and (iii) service under the king or in the temple. Some examples are listed below:

cuuL-aka-irukkai	:	a fortified capital (Tamil Lexicon).
uLa, uLi, uLai (< *cuuL)	:	place, especially about a king, circumstances (DED 588).
uuLiyam (< *cuuL)	:	palace or temple service (DED 646).
cuuL	:	to counsel (DED 2257).
cuuLcci-t-tunhaivar, cuuL-Valloor, cuuLvoor	:	ministers, counsellors (Tamil Lexicon).

The literary evidence suggests that the ideogram was employed in the Indus texts probably to denote the 'surrounding' area or the 'court' around the palace as well as the 'courtiers' like ministers and counsellors who 'surrounded' the ruler and constituted his 'court'.

6. Ideogram for 'Assembly' or 'Meeting Place'

6.1 We may now consider the place signs illustrated in Fig. 8:

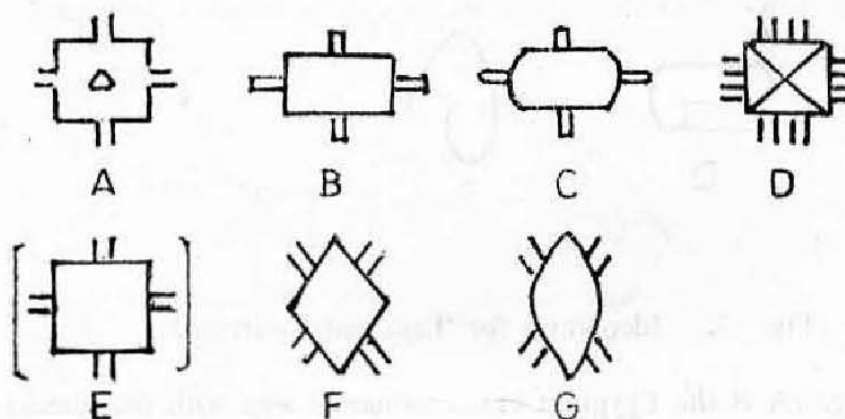


Fig. 8. Ideograms for 'Place of Assembly'

The forms illustrated in Fig. 8A to D are from the early Sumerian Script and those in Fig. 8E to G are the forms of the corresponding Indus ideogram. (The rectangular form in Fig. 8E does not occur in the inscriptions and is conjecturally drawn on the basis of analogy with the variant forms of other place signs in the Indus Script.) While the 'city' sign (illustrated in Fig. 1) shows the 'enclosure' outside and the 'streets' inside, the present sign reverses the arrangement. I now consider that my earlier interpretation of the sign as 'streets outside the city' to be less likely (*Dravidian Parallels*, 5.10). The Sumerian signs represent a 'walled city' (A to C) or 'sanctuary' (D). On this basis I now interpret the Indus ideogram as representing some important place in the city at the crossroads, probably a common place for meeting or assembly.

6.2 Old Tamil works have preserved three expressions for a meeting place or assembly, viz., (i) *ampalam* (DED 145), *potiyil* (from *potu*, 'common', DED 3684) and *maNTu* (DED 3913). While all the three terms provide apt parallels, I think that *potiyil* (from *potu-il*: 'common house') comes closest to the ideographic motif. The association of Akattiyān with Potiyil (supposed to be a hill where the sage eternally resides) tends to confirm this identification.

7. Ideograms for 'streets' or 'quarters'

7.1 The 'cross-roads' signs in the Indus Script may be compared with the graphic analogues in other pictographic scripts (Fig. 9):

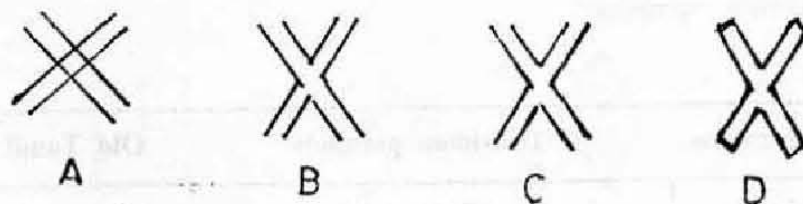


Fig. 9. Ideograms for 'Streets, Quarters'

Fig. 9A and B illustrate respectively the Sumerian and the Chinese ideograms for 'cross-roads'. It is very likely that the corresponding Indus ideograms (Fig. 9C&D) have the same significance of 'streets' or 'quarters'. However textual evidence shows that while the Indus ideograms in Fig. 9C and D resemble each other, they are not mere graphic variants. The 'closed cross-roads' sign (9D) appears most often as an opening sign in the inscriptions followed by a super-script suffix. The 'open cross roads' signs (9C) is rarely seen at the beginning but has a greater overall frequency. I interpret the evidence thus: The 'closed cross-roads' ideogram (9D) represents streets or quarters which were guarded and had restricted access. They were perhaps the quarters of the elite of the city (nobles or priests). The 'open cross roads' ideogram (9C), by contrast, depicts the quarters of the ordinary citizens. Such an interpretation satisfies both graphic and textual evidence.

7.2 Old Tamil literature has preserved two specific terms denoting exclusive and common areas of a city, town or village:

ceeri (< *keeri) : town, village, hamlet, street, passage, quarters, (DED 1669.)

paadi : town, city, village, hamlet, street, section or part of a village, (DED 3347.)

While both the words have broadly the same meaning, there is a marked difference in their usage. The word **ceeri** denotes an exclusive part of a village either for the Brahmanas (as medieval temple inscriptions mention) or for the Pariahs (as in later usage). The idea of exclusiveness is present in both cases. The term **paadi** has no such exclusive connotation and is generally used for areas occupied by agriculturists, herdsmen and other middle castes.

7.3 It may be argued that even if the identification of the place signs in the Indus Script is valid, the place names preserved in Old Tamil literature may have arisen in the historical period within the Tamil country and may have no relevance in interpreting the Indus ideograms. There is force in this contention. However, an interesting aspect of the linguistic parallels attempted here is the new insight they provide in the interpretation of the Old Tamil terms. I shall illustrate this aspect with the following examples:

Indus Ideograms	Dravidian parallels	Old Tamil usages
PALACE (Fig. 2)	*aka-tt-i	akattiyaN
COURT (Fig. 7)	*cuuL-i	(a) uLi, uLai (b) cuuLvoor, uuLiyar (c) cooLiyar, cooLar
EXCLUSIVE QUARTERS (Fig. 9D)	*keeri	(a) ceeri (b) ceerar
ORDINARY QUARTERS (Fig. 9C)	*paad-i	(a) paadi (b) paanhdiyar

7.4 These parallels bring out a remarkable and hitherto completely unsuspected correlation of the Old Tamil words listed above. The name of the eponymous ancestor of the Tamil race (akattiyaN) as well as those of the three most ancient royal houses of the Tamil country (ceera, cooLa, paanhdiya) now appear etymologically connected to place names. Here one may recall the traditional legend that the Cheras, the Cholas and the Pandyas were brothers who originally lived together in one place (Caldwell, *Comparative Grammar of the Dravidian Languages*, 1361:14). It is also significant that in the earliest of the Tamil works, the terms Chera, Chola and Pandya were used attributively in the manner of place names, *preceding* personal names, and it was only during the medieval period that this arrangement was reversed and these terms were suffixed as dynastic appellations *following* the personal names of the kings. (compare the earlier names like ceeraN cengkudduvaN, cooLaN nedungkilhhi, and paanhdiyaN nedunjceLiyaN with the later names like raajaraaja-c-cooLaN and Suntara-paanhdiyaN.)

8. To summarise, the place signs discussed in the paper are illustrated together with some re-arrangement in a chart (Fig. 10) for comparative morphographic study.

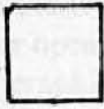


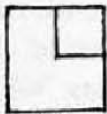


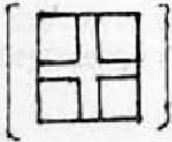


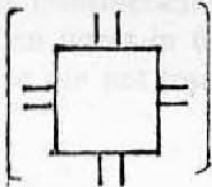


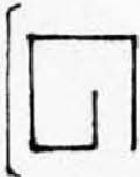


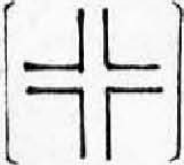

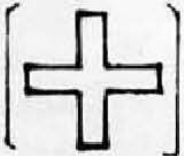

No.	FIGS	RECTANGULAR FORMS	RHOMBOID FORMS	OVAL FORMS	IDEOGRAPHIC MEANINGS
I	FIG. 5				HOUSE, PLACE, ENCLOSURE
II	FIG. 2				PALACE
III	FIG. 1				CITY
IV	FIG. 8				PLACE OF MEETING OR ASSEMBLY
V	FIG. 7				COURT
VI	FIG. 9				ORDINARY QUARTERS
VII	FIG. 9				EXCLUSIVE QUARTERS

Fig. 10. Morphographic Analysis of place Signs

It will be seen that the entire set of place signs is composed of two elements only, viz., (a) an outline representing the plan of an enclosure, place or house, and (b) cross-roads, either open or closed. Secondly, the place-signs with the element (a) tend to occur in three graphic forms, viz, (i) rectangular, (ii) rhomboid and (iii) oval, which are mere variants as may be established by a study of parallel texts. (Some of the forms shown within square brackets are reconstructions of hypothetical earlier stages.) While I have compared the Indus signs with the corresponding graphic forms in Egyptian, Sumerian and other scripts, I do not mean to suggest that the Indus forms were directly borrowed from the other pictographic scripts. The basic elements, namely 'enclosure' and 'streets' are so fundamental to settled human societies and the graphic motifs so simple that they may have existed from at least Late Neolithic period and may have influenced different pictographic scripts by 'idea diffusion'. In my view, the ideographic identifications proposed in this paper, while still tentative, rest on more firm grounds than the linguistic parallels which require further study before they can be confirmed. ||

Note on Transliteration

(The system of transliteration prescribed for this Conference is adopted for transliterated Dravidian terms in **thick type**. Proper names and common words printed in Roman type are not transliterated.)

NOTES ON ILLUSTRATIONS

- Fig. 1. A. Mackay, 1; Vats, 390.
 B. Marshall, 432; Mackay, 579.
 C. Marshall, 59; Mackay, 522.
 D. Gardiner, 0.49.
- Fig. 2. A. Gardiner, 0.6; (see also 0.7 to 10).
 B. **Indian Archaeology: A Review**, 1960—61, Pl. XLVIII-B.
 C. Marshall, 57.
 D. Marshall, 22.
- Fig. 3. A. As in Fig. 2B.
 B. Marshall, 246.
 C. Marshall, 31.
- Fig. 4. A. Hypothetical reconstruction; See Fig. 1A.
 B. As in Fig. 1B.
 C. As in Fig. 1C.
 D. As in Fig. 2B.
 E. As in Fig. 2C.
 F. As in Fig. 2D.
- Fig. 5. A. Gardiner, 0.1; (See also 0.2 and 0.3).
 B. Diringer, Fig. 12.3 (b) 5.
 C. Marshall, 450.
 D. Vats, 6.
 E. Marshall, 135; Vats, 379.
 F. Marshall, 6; Mackay, 262.
- Fig. 6. A. As in Fig. 2B.
 B. As in Fig. 2C.
 C. As in Fig. 2D.
 D. As in Fig. 5C.
 E. As in Fig. 5D.
 F. As in Fig. 5E.
- Fig. 7. A. Gardiner, 0.4.
 B. Gardiner, 0.13.
 C. Gardiner, 0.15.
 D. Jenson, Fig. 36.
 E. Marshall, 106.

- Fig. 8. A. Legrain, Seal No. 431.
 B. Falkenstein, 631.
 C. Ibid.
 D. Barton, 301.
 E. Hypothetical reconstruction.
 F. Marshall, 227.
 G. Mackay, 574.

- Fig. 9. A. Langdon, Jamdet Nasr, 136.
 B. Karlgren, 748 b.
 C. Marshall, 370; Vats, 1.
 D. Marshall, 100, 102.

Fig. 10. Illustrations in this chart have been included in the earlier figures.

N.B. Numbers following Mackay, Marshall and Vats refer to seals. Other numbers (except where otherwise stated) refer to sign-lists.

BIBLIOGRAPHY

- BARTON, G. A. The Origin and Development of Babylonian Writing, (2 parts), Leipzig, 1913.
- CALDWELL, ROBERT A Comparative Grammar of the Dravidian or South Indian Family of Languages, Third edn., Madras, 1961.
- CAMPBELL, JOSEPH The Masks of God, Primitive Mythology, London, 1960.
- DIRINGER, DAVID The Alphabet, 3rd edn., (in 2 vols) London, 1968.
- FALKENSTEIN, A. Archaische Texte aus Uruk.
- GARDINER, ALAN Egyptian Grammar, Oxford, 3rd edn, (1973).
- JENSEN, HANS Sign, Symbol and Script, tr. from German, London, 1970.
- KARLGREN, B. Grammata Senica, Script and Phonetics in Chinese and Sino-Japanese, Stockholm, 1940.
- LANGDON, S. The Inscriptions of Jemdet Nasr, Chicago, 1928
- LEGRAIN, L. Ur Excavations, III: Archaic Seal Impressions, London, 1936.
- MACKAY, E. J. H. Further Excavations at Mohenjodaro, (2 vols), New Delhi, 1937.
- MAHADEVAN, IRAVATHAM (a) Dravidian Parallels in Proto-Indian Script Journal of Tamil Studies, Vol. II, No. 1 Madras, 1970.
- (b) The Indus Script: Texts, Concordance and Tables, New Delhi, 1977.
- (c) Terminal Ideograms in the Indus Script, Seminar on Harappan Archaeology, Srinagar, 1979 (In press).

- MANCHANDA, O. A study of Harappan Pottery, Delhi, 1972.
- MARSHALL, JOHN Mehenjodaro and the Indus Civilization, (3 Vols.), London, 1931.
- VATS, M. S. Excavations at Harappa, (2 Vols.), Calcutta 1940.
- WHEELER, MORTIMER The Indus Civilization, 2nd ed., Cambridge, 1960, (3rd edn., 1968).