

FISH SYMBOLISM IN INDUS VALLEY EPIGRAPHY AND PROTOHISTORIC ACCOUNTS

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The contribution of the Indus Valley civilization to the historic cultures of South Asia is a matter of debate due to a discontinuity in material culture, from the time of its decline to the reappearance of urbanization several centuries later. Progress in the epigraphy of the Indus Valley has been hindered by the absence of a bilingual inscription and the brevity of its texts. One of the most frequent signs encountered in its undeciphered writing system is the pictogram of ‘fish’. On a few seal inscriptions, this sign appears alone, suggesting that it represented a meaningful word or a name. It is noteworthy that Indian literature of later centuries recounts a protohistoric kingdom named Matsya in the vicinity of the Indus Valley sites, as *matsya* is the Sanskrit word for ‘fish’ and a divinity in the form of a fish is celebrated in the Indian version of the flood myth. An analysis of these narratives is presented in this paper, revealing the possibility of an association with the Indus Valley civilization of the more distant past. These observations indicate that fish symbolism may have occupied a place of prominence in Indus culture from political and religious perspectives. The Matsya territory mentioned in Vedic and epic literature is discussed in light of the chalcolithic cultures of Rajasthan, and it is suggested that this region witnessed successive waves of migration of different cultural groups due to its economic importance related to the exploitation of copper reserves.

1. INTRODUCTION

The earliest urban civilization of South Asia developed in the Indus Valley. It spanned a vast area across modern Pakistan and north-western India. Present knowledge of the Indus Valley civilization derives almost entirely from the field of archaeology, for unlike the contemporary civilizations of Mesopotamia and Egypt, it has not left behind much written literature. While writing was known in the Indus Valley, and it is seen primarily in seal inscriptions of short length, the script is undeciphered. Several attempts have been made towards its decipherment, but there is a lack of consensus regarding their success.

The epigraphy of Indus writings faces a major challenge in the absence of a bilingual inscription. What makes this civilization quite enigmatic is that its decline at the beginning of the second millennium BCE apparently marked the end of a tradition. After its towns were deserted, there is a break of nearly a thousand years before urban centres reappeared on the Indian subcontinent further to the east in the Gangetic plains. Therefore, it is not obvious who the Indus people were, which cultures of historic South Asia they contributed to, and to what extent. Furthermore, their own narratives are not accessible to us. They are known to have traded with civilizations of West



Asia, and Harappan-style artefacts have been found in the Gulf and Mesopotamia, attesting to the presence of Indus merchants in these regions. Mesopotamian sources of the Sargonic period refer to trade relations with a country called Meluḥḥa, which many scholars equate with the Indus Valley. Literary evidence suggests that acculturated people of Meluḥḥan origin were living in Mesopotamia during the Ur III period (Parpola, Parpola & Brunswig 1977: 150–155).

In his concordance of the Indus script, Mahadevan listed 417 basic signs (Mahadevan 1977: 32–35). Ancient writing systems usually had their origins in pictograms or ideograms, in which graphical signs depicted words or ideas, and the Indus script retains much of its pictographic appearance. Many signs are graphic variants of each other with small differences. The writing system was probably logosyllabic or morphemographic (Parpola 1986: 408). One of the most common signs is called the ‘fish’. Different variants of this sign occur in the Indus texts (see Fig. 1). ‘Fish’ signs account for nearly ten percent of the known textual matter, and it has been the most discussed sign group in scholarly works aimed at decipherment of the Indus script. In this paper we will be concerned with an interpretation of the basic ‘fish’ pictogram.¹ The central questions here are the following: Can we arrive at a conclusion regarding what the ‘fish’ could have signified? And, if so, can it provide insights into the Indus people and society? It will be argued that the fish symbolism was important in the Indus Valley from both political and religious perspectives. It should also be noted that this sign will be treated at the level of an ideogram, the phonetic value not being of primary importance.








FISH signs							
Frequency	381	216	279	73	188	76	67
Conventional Labels	Fish	+ roof	+ rays	+ vertical stroke	+ slanted stroke	+ rake	+ two lines

Figure 1 ‘Fish’ signs of the Indus Valley script with their frequency of occurrence, according to the concordance by Mahadevan. This image is reproduced following Mahadevan (2011:1).

2. OBSERVATIONS ON THE LANGUAGES OF THE INDUS VALLEY

The Mature Phase of the Indus Valley civilization (also called the Mature Harappan or simply the Harappan Phase, after its type site) lasted from 2600 BCE to 1900 BCE. Most of the inscriptions known from this civilization occur on stamp seals made from steatite (Parpola 1986: 400–402). The seals are most often square in shape, with a short line of text accompanied by an animal motif. A commonly depicted animal is the ‘unicorn’ in front of a cult object. Other animals are also known (for example, a humped bull, an elephant, a rhinoceros). The inscriptions are short, with an average length of only five signs. It is generally accepted that the writing system

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represents a language, although scholars have different viewpoints on this. Farmer, Sproat and Witzel (2004) doubted that it represents a script at all, given the extreme brevity of the texts and the absence of writing on artefacts uncovered from ruins. However, Rao et al. (2009) examined the statistical distributions of sets of different signs based on a probabilistic Markov model and concluded that the syntactic structure of the script resembles a linguistic writing system.

The Indus Valley civilization was spread over a large area. Because ethnocultural characteristics can be expected to vary greatly over such large geographic distances, there should have been multiple languages in use. The Mature Phase of the civilization was characterized by well-connected networks of trade and communication. Weights and sealings were standardized, pointing to the existence of a centralized authority (Kenoyer 1991: 358–359), and some common language was probably adopted to enable communication between different regions.

A likely candidate for the language group to represent the writings of the Indus Valley is Dravidian. The Dravidian hypothesis for the decipherment of the script, first suggested by Heras (1953), implies a linguistic and cultural continuity between the Harappans and the Dravidian-speaking cultures of India. Dravidian is one of the two major language groups of South Asia, being second after Indo-Aryan. There is strong evidence that Indo-Aryan (a subgroup of Indo-European) languages could not have been present in South Asia when the Bronze Age settlements of the Indus Valley developed. Based on archaeology and linguistics (Mallory 1989: 143–221), the Proto-Indo-European homeland can be ascertained to be in the neighbourhood of the Pontic-Caspian Steppes. Indo-Aryans can be distinguished by their familiarity with the spoked-wheeled chariot and horse, neither of which are known to have been present in the ancient Indus Valley. The earliest chariots have been traced to the Sintashta-Arkaim complex and date to around 2000 BCE (Anthony 2007: 402–403). This is speculated to be the geographical location of the Indo-Aryans at the time when the Indus Valley civilization flourished in South Asia. It is thus quite unlikely that Indo-Aryan languages were spoken in the Mature Harappan settlements. These conclusions are supported by genetic studies of human populations. The work of Reich et al. (2009; 2018: 122–153) on the composition of the Indian population indicates that an influx of people carrying genetic traits similar to Indo-European speakers elsewhere occurred in South Asia in the second millennium BCE.

From a study of Old Indo-Aryan vocabulary, Witzel (1999: 6–13) suggested Para-Munda (of the Austroasiatic group) as a widely spoken language in the Indus Valley, but Parpola (2015: 165) disagreed with the linguistic reconstructions that Witzel proposed. One of the main objections is that Austroasiatic speakers constitute only a small fraction of the present South Asian population. This fact is hard to reconcile with the suggestion that Austroasiatic languages could have been predominant in the Indus Valley, whose estimated population of nearly one million was quite large for the Bronze Age. All these considerations leave Dravidian as the most probable language group to represent the inscriptions from the Indus Valley.

Analysis of ancient DNA of a skeleton from the Harappan site of Rakhigarhi (Shinde et al. 2019) shows a genetic structure which is prominently present in South Asia today. Predictably, it lacks any signature of Steppe pastoralist ancestry. A somewhat unexpected discovery was the absence of Iranian farmer ancestry, although Iranian hunter-gatherer ancestry could be detected. This leads to the conclusion that farming developed independently in the Indus Valley without any significant population influx of Iranian farmers from the west. It provides a consistency check (though not a proof) that Dravidian culture could have been present in the Indus Valley, since Dravidian languages seem to be indigenous to South Asia. It needs to be kept in mind

that the decline of the Harappan civilization and the known history of the Dravidian people are separated in time by approximately fifteen hundred years. Dravidian cultures today are found in the peninsular part of India. It is not necessarily implied that all of them owe their origins entirely to the Indus people, and the Proto-Dravidian element of the Indus Valley civilization may be regarded as one of multiple sources that contributed to present-day Dravidian cultures.

Understanding the relationship of the Indus Valley people with the countries to the west may be crucial in determining the origin of its writing system. Writing was known in Sumer and Elam before the Indus Valley. Through contacts by land and sea, the Indus people must have been aware of the developments. If one attempts to understand the Indus Valley script using Dravidian languages, it becomes important to ask what relationship the Proto-Dravidian people could have had with the countries to the west. The most promising theory in this regard proposes the existence of a Proto-Elamo-Dravidian language group. Based on his study of a glossary of Achaemenid Elamite, McAlpin (1974) suggested that Dravidian and Elamitic families are cognates. Brahui (spoken in Baluchistan) has often been classified as Dravidian, supposedly being a relic of Proto-Dravidian culture still existing in the Indus Valley. McAlpin (2015: 553) determined Brahui to belong to the Elamitic subgroup rather than Dravidian. The existence of a Proto-Elamo-Dravidian language group would indicate that the Proto-Dravidians of the Indus Valley civilization shared a common ancestry with Elamites to the west in the more distant past. However, this theory is far from being widely accepted.

3. THE 'FISH' PICTOGRAM

The identification of proper names has played a key role in the decipherment of ancient scripts, as was the case for Egyptian hieroglyphs and Linear B. In the case of Linear B, a bilingual inscription was absent. Proper nouns should be present in the texts on Indus seals, since seals were typically used for trade and administrative purposes. The shortest sequences are of particular interest, as a sequence of multiple signs leaves uncertainties about the role of each sign. On the other hand, from inscriptions of just one sign it becomes evident that it represents a complete word or a name. On a stamp seal from Mohenjo-Daro (CISI: M-1118),² the 'fish' pictogram occurs surrounded by four vertical strokes and accompanied by a bull motif (Fig. 2a). In one seal from Harappa (H-9), it is accompanied by seven strokes on one side and the unicorn motif (Fig. 2b). The seven strokes probably represent the number seven. These are reminiscent of the proper nouns on coins of historic times and our present day, which represent the names of issuing authorities. However, it is not possible to determine from this analogy what these extremely short sequences meant.

The interpretation of the 'fish' sign is the most discussed aspect of the Dravidian hypothesis. In Old Tamil, the word for 'fish' (*mīn*) was understood to mean 'to sparkle' or 'to glitter' and referred to 'star' as well. The words for 'fish' and 'star' were homophonous. The 'fish' pictogram may therefore be interpreted with its rebus meaning of 'star' to represent astral symbolism. This conjecture, originally proposed by Heras (1953: 99–100), has been explored extensively by Parpola (1975: 192–194; 1994: 179–184). For example, the seven vertical strokes and fish appearing in seal H-9 in Fig. 2b might be read as *elu-mīn* (with *elu* 'seven'), the Old Tamil name of the Ursa Major constellation (Parpola 1994: 194–195; 2015: 274–275). Since Vedic times, Ursa Major is known to have been identified with the 'seven sages' in Indian tradition.

2 In this paper, seals are identified following the convention of the Corpus of Indus Seals and Inscriptions (CISI).

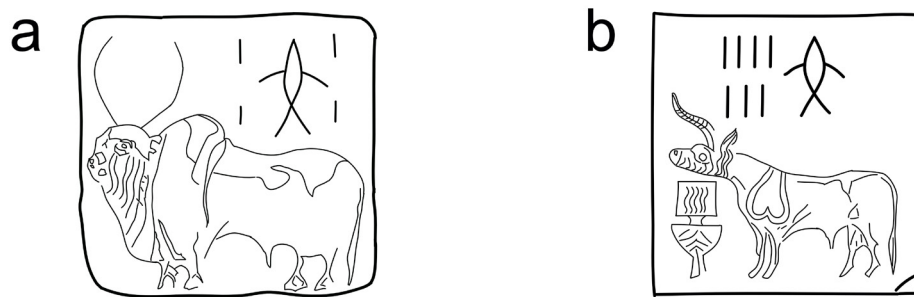


Figure 2 (a) stamp seal from Mohenjo-Daro showing a humped bull (CISI: M-1118); (b) seal with unicorn motif from Harappa (CISI: H-9).

Some researchers have prioritized the interpretation of the texts as quantities of trade items. Bonta proposed that the variants of the ‘fish’ sign denoted different weight standards used in the Harappan cities. A weight standard named *mina* was in use in West Asia, and the Indus people had trade contacts with countries there. The same standard could have been expressed as ‘fish’ due to its phonetic resemblance to *mīn* (Bonta 2010: 57–59). Mahadevan initially agreed with the Heras conjecture but was later convinced that ‘fish’ refers to *apsarās* (water nymphs) with a prominent role in religious rites (Mahadevan 2011: 31). All these propositions suggest an interpretation of the ‘fish’ sign using the rebus principle, where its implied meaning is different than its literal reading as fish. The ‘fish’ sign and its variants (shown in Fig. 1) occur in many different contexts and different combinations with other signs. In the absence of a bilingual text, it is impossible to say if the interpretations suggested above can be generalized to all cases where they are present. Before considering any of these interpretations, we must ask whether the simplest reading of the sign – that it actually stood for a fish – makes good sense in the context of the Indus Valley civilization. A few examples show why this is an important question. There is one Indus seal (M-298) from Mohenjo-Daro with a realistic depiction of the fish (Fig. 3). This must have been the precursor of the simplified ‘fish’ sign. The ‘fish’ pictogram, therefore, should have literally stood for a fish. It is possible to imagine that later developments in the writing system allowed this sign to be used also for homophones, as suggested in different attempts of decipherment. This could be a reason why different variants of the sign were developed to distinguish between different usages. Because these are important questions for decipherment, they will not be our main concern. We will instead focus our attention on the literal meaning of ‘fish’ and seek an explanation as to its importance in Indus culture.

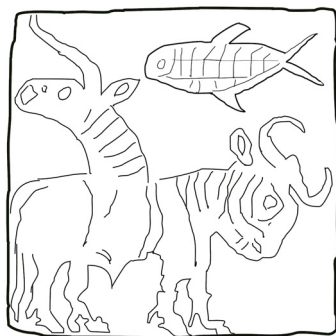


Figure 3 Realistic depiction of fish on a seal (CISI: M-298) from Mohenjo-Daro.

There are two seals from Kalibangan which have ‘fish’ as the only sign inscribed on them (Fig. 4). Seals were primarily used for administrative and identification purposes. It is reasonable to hypothesize that ‘fish’ referred to the name of a person, a tribe, or a governing body. An interesting yet often overlooked fact is that there existed a protohistoric kingdom named Matsya (*matsya* is the Sanskrit word for fish). Its location, determined from descriptions in Vedic and epic literature, is in proximity to the Indus Valley sites (see map in Fig. 5). Is it possible that the nomenclature of a state or territory as ‘fish’ was an ancient custom dating from the Indus Valley and continuing into the historic era? A discussion of the Matsya kingdom as known from literary sources will now be taken up.

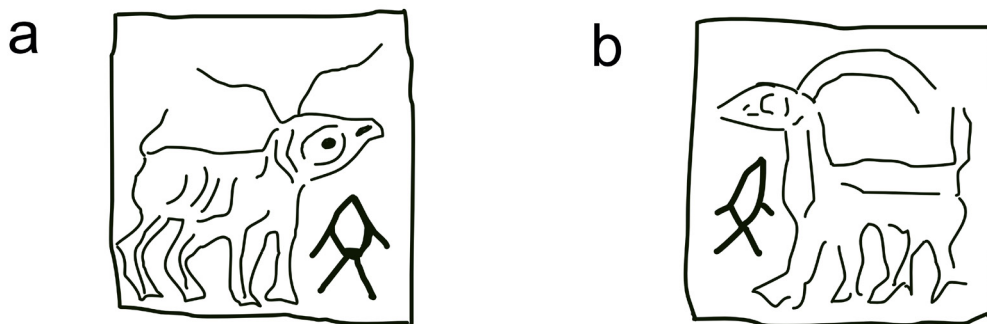


Figure 4 Two seals from Kalibangan with the ‘fish’ pictogram: (a) CISI: K-34; (b) CISI: K-37.

4. THE MATSYA KINGDOM

The geographic backdrop of early Vedic literature in India and the epic Mahābhārata is the north-west of the Indian subcontinent – across Punjab and the Upper Ganga Valley. The Iron Age saw the emergence of small kingdoms (or, alternatively, republics) in North India. This development took place, at the earliest, towards the end of the second millennium BCE, several centuries after the Mature Phase of the Indus Valley civilization was over. Most of the newly established states were clustered in the Gangetic plain. To the west was situated the kingdom of Matsya, identified as having been in the eastern part of the present Indian state of Rajasthan, where the modern cities of Jaipur, Alwar, and Bharatpur are located (Macdonell & Keith 1912: 121–122). It was close to the borders of the Indus Valley civilization, approximately 300–400 km south-east of Kalibangan and 200–300 km south of Rakhigarhi, and Indus Valley tribes migrating towards the Gangetic plains in the Late Harappan period could have settled in this area.

The Indo-Aryan word *matsya* is cognate with Avestan *masya*. The name of the kingdom as it appears in Sanskrit literature is therefore Indo-Aryan. What is uncertain is how it got this particular name, as there is very little information in Vedic and epic literature that sheds light on the nomenclature. We may speculate that the name comes from an indigenous population who lived in that area and were called ‘fish’ in their native language, in which case the Sanskrit name was its direct translation. When Indo-Aryans later developed a superior economy and organization in the area, the earlier inhabitants adopted the new language and customs.

The Matsyas find mention in the *Ṛg Veda* (7.18.6) as one of the tribes counted among the enemies of Sudās. However, this passage can also be read as a simile that compares human nature to that of fish. There are some doubts whether this actually refers to the Matsya tribe or not. The chief of the Matsyas, Dhvasan Dvaitavana, is named as an offeror of the horse sacrifice in the *Śatapatha Brāhmaṇa* (13.5.4.9). In the *Mahābhārata* epic (Book 4: Virāṭa Parva), the Pāṇḍava brothers spend a year of exile in the court of the Matsya king Virāṭa. The Matsyas were well within the Indo-Aryan cultural sphere when these works of literature were composed. The Matsya ruling family is noted for producing chariot warriors, and the elite population clearly seems to have been Indo-Aryan. Much of the general population, however, could have a different root, going back to the Harappans. The *Mahābhārata* (1.57) recounts a legend of a fish giving birth to human children – a daughter and a son. The fish was an *apsarā* (nymph) cursed to stay in the water in the form of a fish. The daughter, Satyavatī, was brought up in the community of fisherfolk, and her son Vyāsa is traditionally acknowledged as the author of the *Mahābhārata*, but what happened to the boy born with Satyavatī is not elaborated. It is just mentioned that he went on to become a pious king named Matsya. This small bit of information is significant. This legend is a cursory reference to a kingdom named after fish, and the lack of detail indicates that the chroniclers of the epic were not familiar with the origins of the Matsya people and were compelled for some reason (presumably political) to invent an origin story. The *Śatapatha Brāhmaṇa* has a passage (13.4.3.12) which, in reference to King Matsya Sāmmada, says (Eggeling 1966: 369): “his people are the water-dwellers, and they are staying here; both fish and fishermen have come thither”. This was a riverine community, and the identification of the people and the country with fish symbolism was apparently a deep-rooted custom.



Figure 5 Map of sites in Pakistan and north-western India.

The Indian state of Rajasthan is home to people of the Mina tribe. Their folklore traces a descent from the ancient Matsya kingdom and the fish incarnation of Viṣṇu (*mīna avatāra* or *matsya avatāra*). There is no explicit mention in the *Mahābhārata* or elsewhere that the Matsya kingdom and the *matsya avatāra* were related (an implicit connection will be discussed later), and this may have been due to the ignorance of the *Mahābhārata* chroniclers, who were unaware of all the Matsya traditions. It is also possible that legends of the Mina people tracing their origin from the fish deity were invented at a later date. What is important here is the story of the *matsya avatāra* itself, not its identification as an incarnation of Viṣṇu, which was a later development. What is interesting in the legends of the Mina people is that the name of the tribe derives not from the Sanskrit word *matsya* but instead from the Dravidian word *mīn*. These accounts, when taken at face value, provide a case for the existence of a ‘fish’ tribe predating the arrival of the Indo-Aryans in South Asia. The fact that their self-appellation was a Dravidian word seems to suggest that they could have originally belonged to a Dravidian-speaking culture that was present in this area.

Heras (1947: 79–81), the father of the Dravidian hypothesis, once suggested that the Minas of Rajasthan were descendants of the Indus Valley people. According to him, this tribe was the one identified by the ‘fish’ sign of the Indus writing system. This suggestion has received hardly any attention from scholars in recent times, although his other hypothesis that the ‘fish’ sign stood for its rebus interpretation ‘star’ has been widely commented upon. Heras made several hasty conclusions in his attempts at deciphering the Indus script. For example, it was obvious to him that the Matsyas of Vedic literature and the Minas of today are genetically related. Such questions require a more nuanced approach, and we must address a few doubts. Is it possible that these origin stories are really not old and were invented more recently? The colonial-era government of the British Raj in India did not assign an honourable status to the Minas. It has thus been speculated that their association with the Matsya kingdom and the fish deity is a modern development, resulting from a search for a dignified heritage within the traditional Hindu social system (Kapur 2007: 138–139). One cannot rule out the possibility that the legends are indeed later developments. In that case, we must consider that the historic name of the tribe had no relation to fish but coincidentally happened to match a word for it. Such coincidences are not impossible. Nevertheless, even if their adoption of the *mīna avatāra* origin story was a later development, the legend of a fish deity should have already been prevalent in the geographical area from a long time, prompting them to be associated with it.

The *Periplus of the Erythraean Sea* (*Periplus Maris Erythraei*, composed in the first century CE) mentions a metropolis named Minnagara in the lower Indus Valley, inland from the mouth of the river Indus (Schoff 1912: 37). Unlike many other names, Minnagara does not appear to have been Graecized, and it literally means the *nagara* (‘city’ in Sanskrit) of Min. The *Periplus* also mentions a second Minnagara upstream of Barygaza or modern Bharuch (Schoff 1912: 39). It is not clear who the Min were or what their origin was. During that period, these regions were under the dominion of Indo-Scythians. The cities and their names could have been much older, predating the arrival of Indo-Scythian nomads. In the absence of further information, it has to be left to speculation if the Min of Minnagara were ancestors of the Minas of Rajasthan – or, stretching the imagination further, descendants of a Bronze Age population of the Indus Valley.

5. THE FISH EMBLEM OF THE PĀṆḌYAS

The decline of the Harappan civilization and the known history of the Dravidian people are separated in time by nearly fifteen hundred years. Dravidian languages are spoken predominantly in the peninsular southern half of India. The urbanization of South India is of uncertain date, generally being placed in the sixth century BCE or later. The Tamil language of the Dravidian group has a rich literary heritage owing to the Sangam anthologies composed in the first few centuries CE. This provides a platform for ethnolinguistic studies to look for possible connections to the Indus Valley civilization following the Dravidian hypothesis. This hypothesis implies that descendants of the Indus people moved into peninsular India at some point in time, perhaps over a prolonged period of several centuries. There are no obvious sources in the form of either literary works or oral tradition that attest to such a mass migration. A few clues might be provided by the legend of Agastya (Mahadevan 2009: 105–107). From the dawn of historic South India, Indo-Aryan customs were known to the Dravidian people. Sangam literature is aware of Vedic practices and Sanskrit words had penetrated the Tamil language. But these influences were small (Dikshitar 1941: 157).

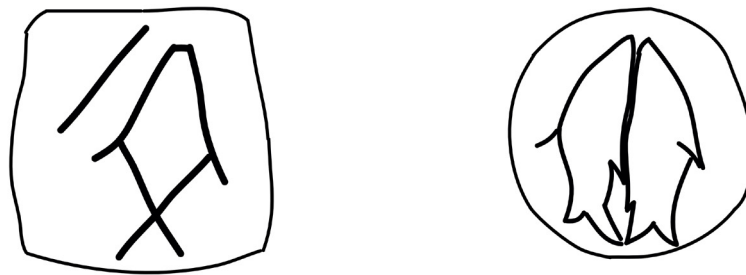


Figure 6 Fish insignia on Pandya coins: c. second century BCE (left) and c. ninth century CE (right), based on Mahadevan (2011: 26).

The Pāṇḍyas were one of the three kingdoms of the Sangam Age (c. 300 BCE to 300 CE), the other two being the Cēras and the Colas. All the three kingdoms were patrons of the Sangam (academy of arts and letters). The traditional seat of the Sangam was the Pāṇḍya capital of Madurai or Korkai. The dynastic motif of the Pāṇḍyas was the fish. It featured on their coins (see Fig. 6). Their rulers were referred to as Mīnavan, meaning ‘he of the fish’ or ‘lord of the fish’. This name is known to have been used for the Pāṇḍya king by the eleventh-century Colas (Ayyar 1946: 162). The guardian deity of the Pāṇḍyan capital city Madurai was Mīnākshi, which in Sanskrit means ‘fish-eyed’; its etymology is of uncertain origin. Mahadevan (2011: 25) suggested that it could be a Sanskritized form of Dravidian Mīn-āṭci (‘rule of the fish’). The Pāṇḍyas have been generally regarded as a Dravidian dynasty, although there happens to be some confusion on this point. Some ancient writers derived the name Pāṇḍya from the Pāṇḍu of the *Mahābhārata*. Parpola (2002) expressed a similar view, implying a descent of the house of the Pāṇḍyas from Iranian-speaking Pāṇḍus. Such an identification is doubtful, however, since it could be a mistake based on two similar-sounding names (Law 1954: 180–181). Sastri (1929: 13–14) commented on the reference in Kātyāyana’s *Vārttika* that a process of Sanskritization could have led to the invention of a Pāṇḍava origin for the Tamil ruling family due to phonetic similarity.

The name Mīnavan and the fish emblem are reminiscent of the Matsya kingdom of epic literature. The idea of a ‘fish dynasty’ seems to be a very ancient one, of which the Pāṇḍyas are the most notable example of historic times. The Pāṇḍyas lived in a coastal region and their country was famous for its pearl fisheries. It is not surprising that the fish became a dynastic motif in a maritime culture. This instance offers a historic parallel for interpreting the ‘fish’ sign of the Indus script as the identifier of a prominent dynasty or clan.

6. THE FLOOD MYTH

Being one of the intriguing flood myths found in many ancient civilizations, the legend of the *matsya* or *mīna avatāra* is a story of a great deluge, and the flood hero in the Indian version is named Manu. Although this tale occurs in many texts with somewhat differing versions, the standard outline is as follows. A small fish appeared to Manu, who put it in a pot of water. The fish kept on growing in size until it had to eventually be transferred to the ocean. Revealed itself as the god incarnate, it advised Manu to escape the impending deluge by sailing away in a boat. Tied to a horn of the great fish, the boat was pulled to safety. An allusion to this tale may have been made in the *Atharvaveda* (19.39.8), marking its first appearance in Vedic literature, although this is a matter of debate (Whitney 1905: 960–961).

The first complete narrative occurs in the *Śatapatha Brāhmana* (1.8.1.1–10), and it is found in a more expanded form in the *Mahābhārata* and the *Matsya Purāṇa*. In the version narrated in the *Mahābhārata*, the seven sages (*saptaṛṣi*) accompany Manu on the boat. The appearance of the fish as a saviour in the flood myth is distinctive to the Indian narrative, not occurring in the Mesopotamian and Hebrew flood myths. However, the inclusion of the seven sages in the *Mahābhārata* (3.185) version shows a parallel with Mesopotamian legends. The seven sages of Mesopotamia were antediluvian characters, wise men associated with the Sumerian god Enki (Ea in Akkadian) residing in Eridu, supposed to be the oldest city in Sumer. Enki was a major god of the pantheon: the protector of mankind, the guardian of knowledge, and the lord of the freshwater sea Abzu. He betrayed the plan of the great deluge to the flood hero, in different accounts named Ziusudra, Utnapishtim, or Atrahasis. The Mesopotamian seven sages, called *abgal* in Sumerian and *apkallu* in Akkadian, are not themselves mentioned in the episode of the flood myth. Later-day Mesopotamian sources ascribe to them an iconography with features of both humans and fish. Neo-Assyrian figurines at the beginning of the first millennium BCE depict *apkallus* as men in fish-skin hoods. Such figurines were often interred in boxes in groups of seven beneath rooms of houses. The Babylonian priest Berossos, documenting the traditions of his country around 300 BCE, recounted the story of Oannes, a monstrous fish with human attributes, who had appeared from the sea and taught people all the arts of civilized life (Bottéro 1992: 247). Later, seven more fish-men appeared. The *Epic of Erra* refers to the seven sages as carp (Foster 1974: 350):

Where are the seven sages of the primeval ocean?

The sacred carp who like their master Ea

With sublime wisdom have been endowed?

There is a mythological account (Reiner 1961: 4) of seven brilliant *apkallus*, identified as ‘purādu-fish of the sea’, who ‘insure the correct functioning of the plans of heaven and earth’. The role of the *apkallus* in sustaining the order of the world is similar to that of the seven sages in traditional Hinduism. In each cyclic age (*manvantara*), seven *ṛṣis* revive the dharma

to be propounded by Manu. Due to such parallels involving the role of the seven sages and an iconography of divine fish-human beings, it is difficult to think of the Indian deluge myth without imagining a link to Mesopotamia at some point in the very distant past. It seems plausible that these stories were well-known to the Indus Valley people, who later passed them on to the Indo-Aryans. There was contact between the Indus Valley and Mesopotamia in the Bronze Age through trade, and the flood myth could have dispersed along this route. Alternatively, it could be even older, as there may have been movement of people between India and Mesopotamia, far back in antiquity and predating urbanization, for which we do not have any surviving record. Moreover, the origin of the Sumerians is unknown. The names of the important cities of Mesopotamia (Eridu, Ur, Larsa, Nippur, and others) that thrived under the Sumerians do not seem to have been derived from their language (Kramer 1963: 40), and the Sumerians arrived in Sumer after the foundations of its first urban centres had already been laid. Some Assyriologists believe that they migrated from the east, but the precise location cannot be determined.

In discussing the Adapa legend, Foster (1974: 350) speculated that a great body of Mesopotamian religious traditions concerning the sea and fishing has been lost: “We suggest the connection of Adapa with fishing was another form of primacy: a recognition or recollection that an early alternative way of life in Mesopotamia to irrigation agriculture was fishing for the carp and other fish that teemed in the twin rivers and the marshes of the delta plain.” This provides a context for understanding the popularity of fish-related legends in the Indus Valley. Indeed, rivers are lifelines of civilizations. The people of the Mohanna community live in houseboats in floating villages on the Indus river near Mohenjo-Daro, and their primary occupations today are concerned with fishing and navigation. Till as late as the mid-nineteenth century, the entire commerce in Sindh was dependent on their services (Shar 1987: 170). Such riverine communities can be imagined to have played an extremely important role in ancient civilizations in facilitating the transport of people and goods.

The *Matsya Purāṇa*, named after the fish incarnation of Viṣṇu, is one of the eighteen mahapurāṇas associated with the core beliefs of Hinduism. According to orthodox tradition, this particular purāṇa was revealed by the *matsya avatāra* to Vaivasvata Manu, the first king of the solar dynasty and the survivor of the deluge. In this text, the place where Manu performed austerities is the Malaya hills of South India. Dikshitar’s (1935) study of the *Matsya Purāṇa* is valuable for his observations of local traditions and place names related to fish legends:

There is a tradition to show that once South India of the extreme south was known to be Matsyadeśa. According to the Kāvēri Purāṇa or Kāveri Mahātmya of the Skanda Purāṇa, the country to the north of Malabar and to the West of Rāmanāthpura (Hassan Dt.) and six leagues to the east of the Western Ocean went by the name of Matsyadeśa. It is said that in a holy spring near the Ardhacandra mountain (probably Candragutti in Shimoga district), Viṣṇu took the form of a fish and worshipped Śiva. This country is now covered by the major portion of modern Coorg. (Dikshitar 1935: 22)

Dikshitar (1935: 21–24) further noted that one Buddhist account referred to an eastern Matsyadeśa in Bihar in eastern India. Some landowners of coastal Andhra Pradesh claimed to have descended from a fish, and South Indian inscriptions mention Matsya chiefs in Orissa. While such usage of fish symbolism could have spread with the movement of people across South Asia, it is noteworthy that the majority happen to be in South India. This offers a point of agreement with the Dravidian hypothesis in suggesting a cultural continuity between traditions

of the ancient Indus Valley and historic South India. Dikshitar was convinced that the author of the *Matsya Purāṇa* had an excellent idea of the geography of South India and that it was written there. The deluge myth is also narrated in the *Bhāgavata Purāṇa*, where the flood hero is Satyavrata, the king of Drāviḍadeśa.

We earlier discussed the Matsya kingdom of epic literature. In regard to the flood myth, a question naturally arises. Did the fish deity of this myth have any role to play in the nomenclature of the Matsya kingdom? The answer is probably yes. In the epic narrative, there is no direct mention of the Matsya people venerating the *matsya* or *mīna avatāra*. Perhaps at the time of its composition, the importance of the fish deity had diminished locally. On closer reading, a connection emerges. In the account in the *Mahābhārata* (3.185), the fish deity refers to itself as an incarnation of Brahmā. Brahmā emerged as a prominent deity in Brahmāna literature, evolving from Prajāpati, Pitāmaha, and Hiranya-garbhā of the Vedas. Although Brahmā forms a triad of deities in Hinduism, along with Viṣṇu and Śiva, he is nowhere close to having as many temples or cults dedicated to him as the other two. His cult faded out before the building of temples became a widespread activity. The reference to Brahmā in the flood myth of the epic shows that this version follows an older tradition, before his cult was superseded by that of Viṣṇu. The identification of Brahmā with the fish deity points to a fusion of two different cultures. As the culture of Indo-Aryan people rose to prominence at the expense of earlier indigenous belief systems, it became necessary to interpret older indigenous deities as incarnations of the new gods.

The oldest of the very few Brahmā temples in India is at Pushkara in Rajasthan. This is in the neighbourhood of the country of Matsya, being situated 150 km south-west of Jaipur. Brahmā worship is an old tradition in this part of India. For example, the *Mahābhārata* (4.12) recounts a festival dedicated to Brahmā that was observed with pomp and grandeur in Matsya during the sojourn of the Pāṇḍavas. Following the observation that the fish deity of the deluge myth was identified as an incarnation of the major god of Matsyas, the two can no longer be seen to be unrelated. The fish deity was revered by the people of Matsya before the Indo-Aryans arrived.

We may note further that Brahmā is depicted in traditional Hindu iconography as a four-faced deity. This iconography may be of Indus origin. Many Indus seals depict a divinity seated in a cross-legged yogic posture. Two such seals from Mohenjo-Daro are shown in Fig. 7. The seated figures in both seals have three visible faces. The question of how Indus artisans represented perspective on seals requires some attention. It has been widely discussed in relation to the depiction of the one-horned unicorn. Scholars have debated whether this could actually be a two-horned animal, with the other horn being hidden in the side view. The issue is now settled with the discovery of unicorn statuettes (Parpola 2011: 142). A one-horned creature was certainly implied on the seals. We should now consider the depiction of legs and ears to gain insights into the standard practice of drawing in perspective. In several unicorn seals from Mohenjo-Daro, we find four legs but only one ear. Including all the legs was not a problem for the artist, but the depiction of two ears posed a challenge because of serious space constraints. Indus artisans were used to taking liberties and leaving out a full description if it demanded a clumsy rendition. Such a situation was also the case for a four-faced deity. A depiction of all the faces on a two-dimensional surface requires a marked deviation from standard aesthetic norms. It is therefore possible that the figures depicted in the seals of Fig. 7 actually represent deities with four faces, but the artist preferred a side view with only three faces visible.

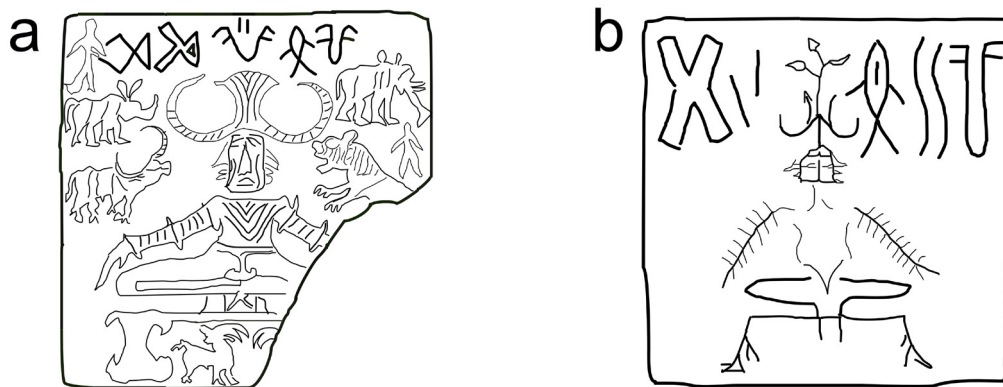


Figure 7 Two seals from Mohenjo-Daro depicting seated deities with three faces visible: (a) CISI: M-304 and (b) CISI: M-1181.

7. REVIEW OF ARCHAEOLOGICAL RECORDS AND CONCLUDING REMARKS

The main objective of this work has been to develop an understanding of the importance of the fish symbolism in the Indus Valley civilization, motivated by the frequent occurrence of the 'fish' sign in its undeciphered writing system. The meaning of this sign has been widely discussed before. Usually, interpretations have been based on rebus readings in terms of homophony. One seal (M-298) from Mohenjo-Daro, which shows the realistic depiction of a fish (Fig. 3), suggests that the 'fish' sign was applied in its literal sense – at least on many occasions, if not all. A relevant fact in this regard is that the westernmost country during the urbanization of the Gangetic plains (towards the beginning of the first millennium BCE) was named Matsya. This region deserves attention, because it is close to the erstwhile sites of the Indus Valley civilization and cultural continuity could have existed. It is also noteworthy that there is a prominent flood myth in Indian literature where the saviour deity has the form of a fish. Due to its parallels with the Mesopotamian flood myth, it is most likely the case that this tale had its roots in a population which had close ties with the civilizations of West Asia. This can only be the people living in the Indus Valley. Moreover, this flood myth must have been important, since it was preserved in later Hindu traditions with a purāṇa named after it. We can deduce from the narration in the *Mahābhārata* that the Matsya country was eponymous with the deity, and this provides a cogent case to infer the existence of a fish deity in the Indus Valley civilization, with people and places named after it. This would offer an explanation why the fish ideogram is so frequent in its writing system.

The Matsya kingdom of the Vedic period is hardly given any attention in discussions of the Indus 'fish' sign. This probably has to do with the Sanskrit name Matsya, which gives an impression that it was an Indo-Aryan tribe and could have nothing to do with the Indus people. Often while discussing people and places identified in literature, it is assumed that a large geographical area is characterized by people with one particular type of ancestry and language. Yet, this need not be the case. When tribes migrate, it is not necessary that they preserve their unique identity over generations. As Indo-Aryans were not moving into a vacuum in South Asia, it is more likely than not that people of different cultures merged and forged new identities. Regarding the Matsya, the following picture may be reconstructed. In the Indus Valley,

there was a particular population called ‘fish’, who revered a fish deity associated with the deluge myth. After the disintegration of the Indus cities, there was a large-scale migration into modern-day India. Some of these people settled in eastern Rajasthan and the country was named after them. They mixed with the Indo-Aryans when this latter group arrived. Indo-Aryans gradually came to occupy a dominant position in economic and political life. A period of bilingualism prevailed, with the Indo-Aryan name of the country being the Sanskrit translation of its original name.³ As the earlier native culture began to fade in prominence, the Sanskrit name stuck. We will now try to understand these observations in light of the archaeological record of human habitation in the Matsya region. Was there a particular reason why successive waves of migration took place here? Such a discussion must be conjectural in nature. Unlike Egypt and Mesopotamia, the ancient civilizations of South Asia have not been generous in leaving behind epigraphic material. Arriving at conclusions about the culture and tradition of its people will therefore remain a challenging topic with many open questions.

The decline of the Indus Valley civilization was marked by the disappearance of its material culture. Its traditions were maintained over subsequent generations by people who migrated eastwards and lived alongside other native populations. Possehl (1997) discussed this eastward migration of Indus people by drawing on settlement data. The settled area of the Mature Harappan Phase (2500–1900 BCE) was estimated (Possehl 1997: 429) to be 7358 ha, with an average settlement size of 7.2 ha. The estimate for Post-Urban Harappan (1900–1400 BCE) settlements is a total area of 4484 ha, with an average of 3.5 ha per site. At the end of the Mature Harappan period, its architectural style and the use of stamp seals were discontinued. Settled farmers abandoned Sindh and Cholistan in large numbers, and the number of sites increased in Punjab, Haryana, western Uttar Pradesh, and northern Rajasthan (Possehl 1997: 439). This movement must have led to the eastwards expansion of Indus cultural traditions. The process of cultural diffusion probably started much earlier, even before the Mature Harappan period. The Indus people are known to have had trade relations with chalcolithic cultures of the east.

There are rich deposits of copper around the Aravalli Hills of Rajasthan, and these were exploited by the people of the Ganeshwar-Jodhpura Cultural Complex (GJCC). Although this was one of the most important sources of copper for the Indus people, other sources were located on the western side in Baluchistan and Afghanistan (Kenoyer & Miller 1999: 115). Copper imported from Oman was also in use. There is no archaeological evidence of Indus people being involved in the mining and smelting of copper ores in the Aravallis. These technologies were mastered by the native population of the GJCC (Agrawal 2001: 156–157). There are 385 GJCC sites known in Rajasthan, spread over 34,000 sq. km. with an estimated settled area of 12.51 sq. km. (Rizvi 2013: 318). The Indus sites lay to their north and west. To the south of the GJCC was situated the Ahar-Banas culture. With the collapse of trade networks at the end of the Mature Harappan period, the Rajasthan copper mines would have been the primary source of copper for the Indus people of the north. The tribe or clan identified with the ‘fish’ symbolism in the Indus Valley presumably extended its sway into this region and mixed with the native people of the GJCC.

Trade between the GJCC and Indus Valley sites is known from Early Indus times (McIntosh 2008: 161–162). In return for the copper they supplied, the GJCC received finished goods

³ Meaningful proper names can be translated from one language to another. For example, Nederland (Dutch) or Netherlands (English) of Germanic languages is Pays-Bas (French) or Paesi Bassi (Italian) in Romance languages.

from the Indus Valley. According to McIntosh (2008), the trade network operated along a riverine route through Kalibangan. In the Early Indus period, Kalibangan had an unusually large number of copper objects, including characteristic Ganeshwar-Jodhpura arrowheads. In the Mature Harappan period, Kalibangan yielded twelve hundred Harappan copper objects. It is thus evident that the Indus Valley and the GJCC were in close contact over an extended period of time, and there was sufficient scope for diffusion of Indus culture into Rajasthan. Still later, when Indo-Aryans arrived in South Asia, the prospect of metallurgical activity should have motivated some of them to gravitate towards the Aravallis. The affluence of the Matsya kingdom of epic literature may have resulted from its control over the copper reserves.

The urbanization of the western Gangetic plains and the advent of the Iron Age are marked by the Painted Grey Ware culture (approximately 1200–600 BCE). Prior to this, there was the unique phenomenon of the Copper Hoards, whose sites are spread across present-day Uttar Pradesh, Bihar, Orissa, and Madhya Pradesh. The objects can be classified into two types: the Plateau type (to the east), comprising simpler objects like flat celts, and more advanced objects of the Doab type (to the west), comprising the antennae sword, the barbed harpoon, and the so-called ‘anthropomorph’ (Agrawal 1969: 114). There have been various suggestions about the identity of the Copper Hoards people, like Indo-Aryans coming from the west or Mundas migrating from the east. Because the Copper Hoards objects are devoid of pots and pans, they do not seem to represent a sedentary culture. There is an interesting anthropomorph from Sheorajpur in Kanpur District (Uttar Pradesh) with a ‘fish’ sign inscribed on it (Parpola 1994: 54–55). Parpola (1994) has suggested that such examples of Indus-type symbols are relics of the forgotten writing system. The symbols may be expected to mark the identity of the owner or manufacturer. It is not known if the anthropomorph of Sheorajpur was made from the copper of the Aravallis. If it was, the ‘fish’ sign would make good sense as the name of its place of origin. Our present knowledge about the Indus Valley and subsequent cultures of its environs will certainly be enriched in the future by new excavations. By some estimates, less than ten percent of known Indus sites have been excavated. It may be hoped that future explorations will uncover new artefacts to provide a clearer idea of the continuity of Indus traditions into later times.

ABBREVIATIONS

CISI Corpus of Indus Seals and Inscriptions

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