AN INVESTIGATION OF A HARAPPAN TRADING OUTPOST ON THE MAKRAN COAST

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Introduction

The period between 6,500 BC and 5,000 BC saw the transition from Hunter-Gatherers to **Early Food Producers** in the Indus Valley. This era is represented at Mehrgarh, a Neolithic-Chalcolithic site located on the Bolan piedmont in Balochistan. It is characterised by domestication of plants including wheat, barley and lentils, and animals including cattle, goats and sheep. The site offers evidence of grain storage rooms within mud-brick houses, implying surplus grain production that could be consumed off-season, and during seasonal drought or flooding caused by hill torrents in rainy season. Surplus production also offered the possibility of barter in exchange for items like ornaments made of sea shells and colourful stones, evidently obtained from distant sources. The nature of early trading was mostly restricted to high value commodities for the well-to-do, which also stirred social stratification, something that was lacking amongst hunter-gatherers and pastoral nomads of the past. Trade, thus, came to be an early by-product of an emerging agrarian society.

The **Early Harappan Phase** between 5,000 BC and 2,600 BC saw developments in ceramics including wheel-turned pottery, copper metallurgy, seal carving, and the rudiments of writing. A most important technological development during this phase was invention of the wheel, circa 3,500 BC, purportedly in Mesopotamia. Unlike pannier-laden beasts of burden, or basket-bearing labourers of the past, wheeled vehicles allowed greater distances to be traversed in much shorter times. In the Indus Valley and its peripheral areas, two-wheeled bullock carts came into vogue, allowing larger volumes of goods to be transported to and from distant areas more efficiently. Different settlements were now linked by well-established trade networks along trodden pathways, as well as rivers, to facilitate the movement of goods and raw materials. Some of these raw materials that defined status and power, like gold, silver, marine shells and gemstones were available exclusively in certain regions, resulting in robust competition to obtain them. New settlements sprang up to exploit, as well as control and protect the newly discovered resource areas. Trade and communication networks, along with a diverse agrarian subsistence base that could feed cities securely, became the keys to regional connectivity or 'regionalisation'. This phase evolved into what Kenoyer terms as 'formative urbanism.'

The period between 2,600 BC and 1,900 BC, also known as the **Mature Harappan Phase**, saw complete integration of regional cultures of the Greater Indus Valley and its urban centres. Five of these major centres can be classified as city-states based on their size, extent of civic development, and the economic and political power they projected in the region at large. These

states included Mohenjo-daro (250 ha), Harappa (150 ha) and Ganweriwala (80 ha) in Pakistan, and Dholavira (100 ha) and Rakhigarhi (80 ha) in India. These city-states were largely independent, and each held sway over substantial contiguous territory. Absence of palaces and tombs for any royalty seems to suggest that a small group of elites including merchants, landowners and priests, collectively ruled each city-state. During the mature phase, these states remained at the forefront of Greater Indus Valley. This phase is characterised by large pre-planned cities and their peripheral settlements, use of kiln-fired bricks for buildings, walled locales with gated communities, numerous water wells, and fastidious attention to sanitation. Tools of trade were astutely standardised across the region for ease of business. These included uniform weights and measures, an effective system of taxation, and a script restricted to small seals (that possibly carried individuals' name and 'clan' insignia) for ratification of receipt or despatch of goods. Trade in this phase extended to the Gulf and Mesopotamia in sail boats that hugged the coast, and made use of monsoon winds and seasonal currents. Bountiful agricultural produce – coupled with no known evidence of standing armies and warfare – spawned widespread prosperity amongst the population. The result was a peaceful and fairly egalitarian society that lasted seven centuries and beyond.

Nature of Trade – An Overview

Trading in the Indus Valley was of two distinct and diverse types: local and distant. Village-to-town (or farm-to-market) local trade dealt with commodities consumed on a day-to-day basis, and included edibles like grain, lentils, vegetables, fruits, meat, dairy products and condiments. Cotton, a staple product of the Indus Valley, was another important article of regular trade. A large market size, secure communication networks, and dependable means of road and fluvial transportation system, ensured that subsistence needs of the majority population were adequately met through local trade.

The second type of trade pertained to material goods that define status and power, and involved imports from distant resource areas because of the relative rarity of these commodities in the Indus Valley. The elite of the Indus city-states were wealthy enough to afford exotic items like: (i) jewellery crafted from gold, silver, gemstones and marine shell; (ii) durable utensils and other sundry implements manufactured from copper, and the more hardy bronze; (iii) figurines, amulets, and seals carved from steatite (soapstone). Crafting of these imported raw materials was done in local workshops. This

POLITICAL ORGANISATION

'Due to long distances between the four major cities, it is highly unlikely that a single ruler ever dominated the entire Indus Valley. Each of the largest cities may have been organised as an independent city-state, with different communities competing for control. At times a single charismatic leader may have ruled the city, but most of the time it was probably controlled by a small group of elites comprised of merchants, landowners and ritual specialists. Alliances between two or more of the largest sites would have stimulated extensive colonisation of resource areas. On the other hand, competition between the cities may have resulted in temporary breakdown of trade and the collapse of political power.'

Ancient Cities of the Indus Valley Civilisation
J M Kenoyer, Oxford, 1998

arrangement kept the costs low, and also allowed the customers to place orders in step with designs and styles prevalent in the Indus Valley.

IMPORTS FROM PERIPHERAL RESOURCE REGIONS
• **GOLD** – Panned from Amu Darya and River Helmand (Afghanistan), River Indus (Pakistan). • **SILVER** – Aravalli Range (India), Kandahar (Afghanistan). • **COPPER** – Aravalli Range (India), Balochistan Hills (Pakistan). • **TIN** – Kandahar and Shortughai (Afghanistan). • **CARNELIAN –** Balochistan Hills (Pakistan), Gujarat and Kathiawar (India). • **LAPIS LAZULI** – Balochistan Hills (Pakistan), Shortughai (Afghanistan). • **AGATE, JASPER** – Balochistan Hills (Pakistan), Kutch (India), Northern Afghanistan. • **STEATITE** – Balochistan Hills (Pakistan), Northern Afghanistan. • **MARINE SHELL** – Kutch and Saurashtra Coast (India), Makran Coast (Pakistan).

Table-1

As Table-1 indicates, trade with peripheral resource regions was wide-ranging, and could be easily conducted overland, with bullock carts as the principal means of transportation. Flat-bottomed, high-prowed river boats were also used for transporting goods, where feasible. Way stations for victuals and resting of men and beasts must have been pre-arranged at towns and villages enroute. For security reasons, movement along the roads and riverine tracts would have been in well-guarded convoys. Most of these organisational and logistical issues were better taken care of when a trading outpost was eventually established at Shortughai (Afghanistan) around 2000 BC. The post ensured efficient extraction of lapis lazuli and tin from nearby mines, and arranged for their prompt transportation to the major centres of Indus Valley, where these were much in demand.

The main technical constraint to long distance trade was the limited capacity, and slow speed of inland transportation. This resulted in a shift of focus on to maritime trade, despite the risk factors like unreliable navigation and piracy at sea.

IMPORTS FROM OVERSEAS RESOURCE REGIONS
• **COPPER** – Oman (Magan). • **MARINE SHELL** – Oman (Magan). • **MOTHER-OF-PEARL –** Bahrain (Dilmun). • **DATES** – Mesopotamia (Sumer and Akkad), Oman (Magan). • **INCENSE** – Mesopotamia (Sumer and Akkad), Oman (Magan). • **OLIVE OIL** – Mesopotamia (Sumer and Akkad). • **WOOLEN YARN** – Mesopotamia (Sumer and Akkad). • **LEATHER –** Mesopotamia (Sumer and Akkad).

Table-2

It can be seen from Table-2 that maritime trade extended to the Gulf and beyond. Oman (Magan) was an additional source of copper, as well as marine shell. Bahrain (Dilmun) was a supplier of mother-of-pearl used in high-end jewellery. Imports from Mesopotamia (Sumer and Akkad) mostly included agricultural products like dates, incense and olive oil, that were either scarce or not available at all in the Indus Valley.

Intriguing as it is, Sumerians and Akkadians did not send their trading ships to the ports of Indus Valley, which was known to them as 'Meluhha' Country. Operating out of small harbours along the Makran Coast, it was the Meluhha ships that navigated all the way to the Tigris-Euphrates delta.

Alluding to the trade networks, a cuneiform inscription attributed to the founder of the Akkadian Empire (2334-2154 BC), King Sargon of Akkad, proudly proclaims: "He made the ships from Meluhha, the ships from Magan, (and) the ships from Dilmun tie up alongside the quay of Agade."

EXPORTS TO SUMER AND AKKAD

- **CARNELIAN**
- **LAPIS LAZULI**
- **IVORY**
- **MARINE SHELL**
- **COTTON YARN**
- **TIMBER**
- **INDIGO**
- **SPICES**

Table-3

A cursory glance at Table-3 shows that exports to Sumer and Akkad mainly included items that were not available in Mesopotamia. Carnelian, lapis lazuli, ivory, and marine shell were much sought after for jewellery by the well-to-do people. Rosewood, and Himalayan Cedar was used in quality furniture, as well as construction material in temples. Indus cotton textiles were so popular that a colony of weavers from the Indus Valley was especially established in the town of Guabba (near Lagash) around 2112 BC.

There are a few references to some Indus animals, including the long-horned water buffalo depicted on a cylindrical seal.

WHO WERE THE MELUHHA?

Cuneiform scripts on Sumerian and Akkadian cylinder seals and clay tablets mention Meluhha traders, who are generally assumed to belong to the Indus Valley region. Linguists have looked at the etymology of the Meluhha toponym, focusing on its purported Dravidian linkages. This line of thought is based on the premise that the proto-Dravidian speakers of Indus Valley called their region, or themselves, by that name or its derivatives. It has to be understood that the vastly spread Indus Civilisation was not a centrally controlled polity, but a confederacy of city-states, and hence likely to have been identified by more than one appellation, as yet unknown or undeciphered. It is quite likely that the Indus region was named Meluhha by their Sumerian and Akkadian trading partners due to the maritime linkage.

It would be instructive to note that the Sumerian word *malah,* and its variants in ancient Semitic languages – including Akkadian (*malahum*), Arabic (*mallah*), Aramaic (*melahha*) and Hebrew (*malakh*) – all mean 'sailor' or 'seafarer,' **which is what maritime traders of the Indus Valley were to the Sumerians and Akkadians.** Meluhha is, thus, most likely a colloquial derivative of *malah*. Meluhha Country, as written in Akkadian cuneiform in the title of this note would, therefore, mean **Seafarers' Country**, more in the sense of a geographical region than a political entity**.** *Malah* also continues as an ancient loan word in Urdu, an Indo-Iranian language spoken in Pakistan and Northern India, and retains its meaning of a sailor.

It may be noted that long after maritime trade from Indus Valley declined, the Meluhha epithet was re-attributed by the Assyrian King Ashurbanipal to a region around Egypt that he had campaigned against. The reappearance of the name after more than a millennium might seem contrary and confusing, but probably it harked back to the historic memory of a distant land, in all its glory.

Interpretation of Meluhha by the author.

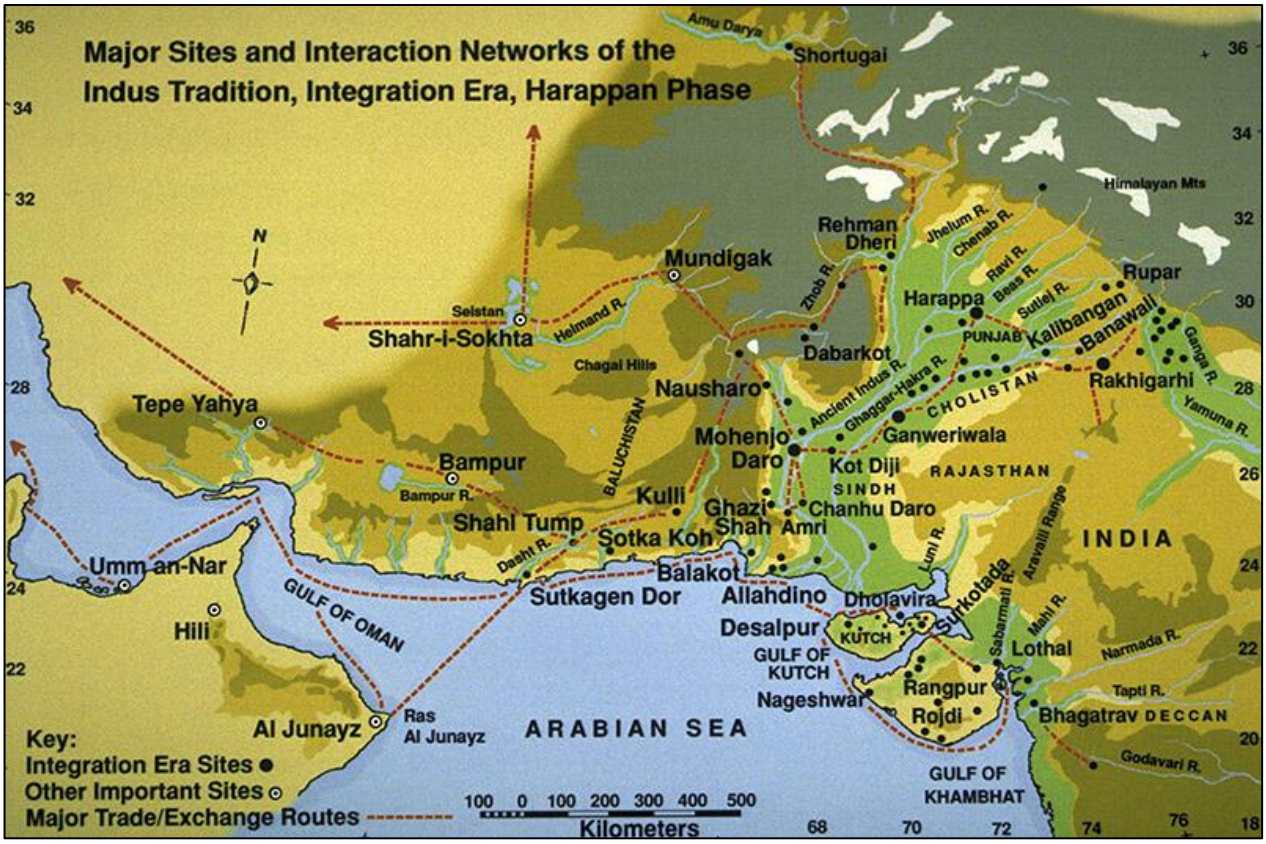

Fig-1

Peacocks are depicted on pottery, and may be identified with the enigmatic 'haia birds' mentioned in a few inscriptions. These animals and birds may also have been part of regular trade with the Indus Valley.

Indus-Mesopotamian trade lasted during the Mature Harappan Phase, peaking out during the reign of Sargon of Akkad.

Problems of Overseas Trade

It is a marvel of human ingenuity that overseas trade could be conducted over vast distances, four millennia ago. One has to imagine the coordination required for transporting goods, firstly overland from an Indus city to a port on the Arabian Sea coast, and then overseas on coast-hugging sailing ships bound for Mesopotamian ports – a total of 3,500 km from Harappa to Ur, for instance.

Arriving at a port, the convoy of bullock carts, loaded with costly merchandise for export, would have to wait for a ship which might not be readily available. Setting up a temporary camp, guarding the goods, arranging food for men and fodder for beasts, and enduring the merciless Makran sun, were some of the challenges that had to be met. Similar problems were faced when imported goods arriving by ship had to be transported on bullock carts for further travel inland. The difficulties were further compounded by greedy middlemen at the ports, who got their chance to make immoderate profits while provisioning for the weary Indus teams waiting for the ships or their bullock carts.

A permanent trading outpost, at or near the port, was just the facility that could take care of most of the mentioned problems. It

could serve the purpose of a caravanserai, a freight-forwarder's office, and a warehouse. Besides the workers in periodic transit, personnel posted for longer durations could be housed in fairly tolerable conditions. As would be expected, such trading posts had no place for resident families, who would only have added to the difficulties.

Soon after overseas trade started, the need for a trading outpost on the Makran coast must have been felt. In fact, there were two such posts (Sotka Koh and Sutkagen Dor) 150 km apart as the tern flies. Whether both these posts were established by either Harappa or Mohenjo-daro, or one each by both – perhaps in mutual competition – remains moot due to lack of comprehensive excavations at these coastal sites. There is also the possibility of the earlier one having been abandoned due to excessive coastal recession, tectonic uplift or a catastrophic earthquake, and a new post was established thereafter.

Makran Coast Environment

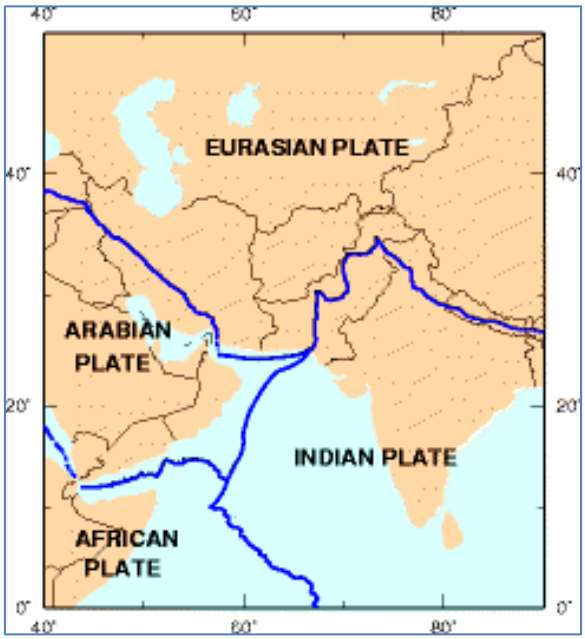

Fig-2

Located between the Strait of Hormuz and the Indus Delta, the Makran Subduction Zone runs east-west for 900 km. At the margin of the plate, rapid surface uplift of up to 2 cm per year is experienced (Mason et al, 2007; Frohling and Szeliga, 2016), which is linked to subduction of the oceanic portion of the Arabian Plate beneath the Eurasian Plate (Fig-2).

The coastal morphology of the Makran coast is determined by the interaction between plate tectonics, differential soil erosion between hard and soft rock, and coastal sedimentation which permits accumulation of extensive sand deposits. The general topography of Makran coast is marked by the Makran Coastal Range which runs east-west for about 400 km, rising to 2,100 meters at places. The present distance of the hill range from the coast varies from 0-20 km. In these regions, the coast has receded seaward by several kilometres over the last millennium at the rates of up to 5 meters per year (Gharibreza, 2016; Normand et al, 2019). This rate indicates that the coast must have been about 22 km inland, 4,500 years ago. These results emphasise vigorous sediment activity along the Makran Coast.

The Makran region presently has an arid climate with a low yearly mean precipitation of 97-127 mm at the coastline (Sanlaville et al, 1991). Rainfall occurs mainly in winter and can be intense, inducing flooding in the coastal plains. In western Makran, waves and wind come mainly from SSE, with significant wave heights of 1-3 meters (Etemad-Shahidi, and Saket, 2012). The climatic cycle in place today is probably not much different from that experienced by Indus cities (Kenoyer, 1998).

Sotka Koh – A Faraway Outpost

Sotka Koh ('Burnt Hill') is an outcrop of jagged, stratified hills in the Shadi Kaur (river) valley. It is located 17 km north of the coastal town of Pasni (Fig-3).

The site was first surveyed by George Dales and his team including Cuyler Young, Rafique Mughal and Barbara Dales in 1960, while performing a survey of ancient coastal sites of Makran. Due to inhospitable conditions, only a day-long investigation could be conducted by the team. Limited excavations were conducted by a Franco-Italian team led by Roland Besenval and Valeria Piacentini, in 1987-88.

I was successful in finding the site after several abortive attempts, and between 1994 and 2004, had the opportunity to visit it several times. These visits were limited to topographic surveys of the site, as well as photography of visible foundations of buildings, compound walls, and potsherds scattered by tens of thousands all over the place. The following account of Sotka Koh is based on my personal observations.

Sotka Koh is surrounded by low hills of the Makran Coastal Range, while Shadi Kaur fed by seasonal hill torrents, grazes the site. Availability of fresh water – though limited during dry season – was perhaps an important reason for selection of the site. Location on high ground was another vital consideration as it offered protection against flooding during the short rainy season. Lastly, siting the post atop hillocks provided early warning against any intruders in the wilderness of Makran.

Fig-3. Shadi Kaur traverses 17 km from Sotka Koh before discharging in the Arabian Sea near Pasni. The river estuary was much further inland four millennia ago. [Satellite image: Google Earth.]

Fig-4. The heart-shaped feature in the centre of the picture is known as Sotka Koh. It is criss-crossed by several rain water channels. [Satellite image: Google Earth.]

Fig-5. Dimensions and size of Sotka Koh. [Satellite image: Google Earth.]

Buildings and Structures

The hillocks at the site are three kilometers in circuit, and the habitable remnants of the settlement towards the east occupy an area of about 17 hectares (Fig-5). The settlement is difficult to appreciate from the ground since no structures stand out in relief. The highest point on the hillocks rises to 35 m.

There is lack of evidence of an all-round walled fortification, although traces of a portion of a wall are visible; this may have been a compound wall defining functional or social spaces in a portion of the settlement (Fig-6).

In the absence of detailed excavations, little can be said about the architecture and buildings. However, as many as five dispersed clusters of the remnants of buildings are visible (Fig-7). A rough count of the visible foundations reveals that the site had anywhere between 50-70 buildings. Several circular features of about one meter diameter are visible on top of the ridges. Closer inspection revealed that these are open-pit ovens buried under rubble.

At several places, erosion by elements reveals remnants of rooms in which stratified rock was used as a base, over which mud-brick walls were raised. Absence of kiln-baked bricks, despite a well-established pottery industry, indicates that low rainfall may not have been a threat to mud structures.

It is apparent that the lay of the land does not permit buildings to be constructed on a grid plan. The foundations indicate that the buildings were aligned along the cardinal points of the compass.

KAISER TUFAIL

Fig-6. Portion of compound wall running across centre of the picture. Note potsherds strewn all over.

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Fig-7. Aerial view of Sotka Koh. Up to five dispersed clusters of building remains are visible in this picture. The white patch in the centre is the portion excavated by a Franco-Italian team in 1987-88.

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Fig-8. Notional reconstruction of the site showing seventy-odd buildings. Each building has been raised on a visible foundation. Several open pit ovens spewing smoke are also visible.

Pottery and Other Artefacts

At first sight, a visitor cannot fail to notice tens of thousands of potsherds strewn all over the site. Dozens of open-pit ovens on the ridges seem to suggest that Sotka Koh had a well-established pottery-making facility. Ostensibly, it was a necessity for packaging of goods, considering the role of the site as a trading post. Fuel to fire these ovens (or kilns) most likely consisted of shrubbery and cow-dung, as the soil and weather of Makran coastal region are not conducive to forestation.

Kiln-baked terra cotta wares include pieces of large jars, pots, lids with knobs, perforated vessels and plates. The pottery is wheel-turned, with a pink or buff slip. Some of it has black-painted geometrical shapes including fish-scale and zig-zag patterns, intersecting circles, and wavy lines. Human and animal motifs are notably absent. There is evidence of potters' marks on the rims of some jars. The pottery designs are of typical Mature Harappan type, and there are no apparent signs of hybridisation with the contemporaneous Kulli culture of southern Balochistan.

The complete absence of toys, figurines and jewellery, at least at the uppermost level, indicates a rather utilitarian environment, though it is also possible that these items may have been scavenged over the millennia. Further excavation is bound to reveal at least some elements that might mitigate the seeming socio-cultural isolation of this Harappan outpost.

During one survey, a small heart-shaped copper fragment, blued due to oxidation, was found in the surface debris. A photograph of the same was shown to Kenoyer who confirmed it as part of a square copper seal, having concentric

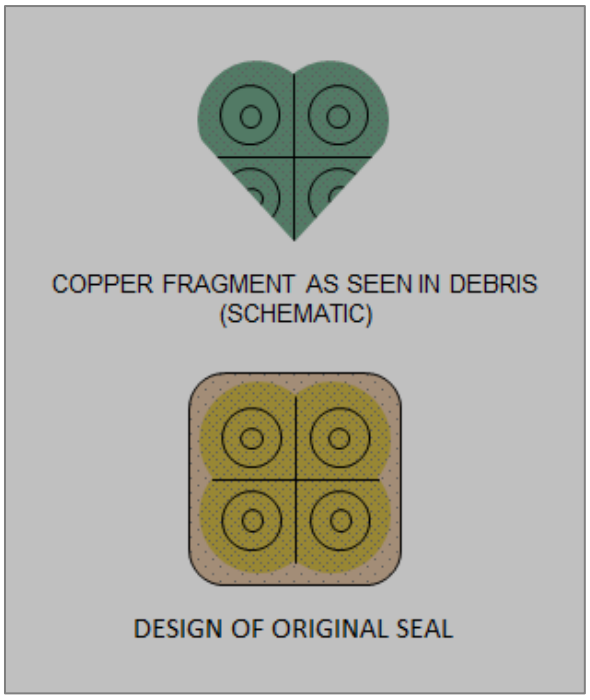

Fig-9. Copper seal, without any script.

circles in each of its four quarters (Fig-9). It was without any accompanying script, and was probably worn as an amulet.

Location of Harbour

The close vicinity of Shadi Kaur to the site leads one to assume that the harbour may have been at Sotka Koh itself. Laden vessels could possibly navigate the river, which was wide and deep enough during the rainy season, and perhaps a few months beyond. Width and depth notwithstanding, the river meanders through perilous rock formations during its passage to the sea. A question mark thus remains about safety of navigation. Existence of ancient ruins of a small settlement known as Prahag (Fig-3), about 12 km downstream of Sotka Koh, provides a clue. This site is strewn with potsherds similar to the ones at Sotka Koh. It can be conjectured that this was a fishing village before the trading outpost was established at Sotka Koh, and may well have been repurposed as a suitable harbour

catering to maritime trade. Prahag may also have served as a repair and victualling facility for ships sailing from Lothal (in Indian Gujarat), on their way to and from the Gulf, and beyond.

Discussion

In the absence of dedicated excavations, definite conclusions cannot be made, despite the cursory similarities of Sotka Koh to most of the inland Harappan sites. Future investigations could focus on answering the following questions:

(a) What was the purpose of having two coastal trading posts (Sutkagen Dor and Sotka Koh) within 150 km of each other? Was one of the sites abandoned for some reason like an earthquake, and a second one commissioned later?

(b) Was the harbour located at Sotka Koh, or was it further downstream at Prahag where there is some evidence of a small ancient settlement?

(c) Was there any hybridisation between Harappan and local culture in terms of dress, pottery, figurines, etc?

(d) What was the design of sea-going vessels? Maritime-themed images (if any) on seals and pottery could provide some clues.

(e) Was Sotka Koh a non-family station? Discovery of toys and women's jewellery could resolve this matter.

(f) Did the Harappan settlers co-exist peacefully with locals, or there is evidence of conflict between the two communities?

Site Protection and Conservation

Presently Sotka Koh is not listed as a protected site by the Balochistan Department of Archaeology and Museums. It is located on lands held by the head of Kalmati tribe, and any change of ownership would involve a lengthy legal process, though it is understood that the head of the Kalmati tribe is amenable to any such adjustment. In the absence of any protective cover, the site is subject to irreparable harm. As an instance, a tall high voltage electricity transmission tower has recently been erected in the middle of the site, involving extensive and careless digging. In another case, villagers from the nearby settlement of Sindi Passo moved on to the hillocks to avoid flooding after torrential rains in 2005. The squatters soon built a dozen or so huts atop the high ground, and now the small colony has a permanent presence amidst the ancient site. There is, thus, an urgent need for initiating legal process to bring the site under official purview.

Conclusion

It can be said with certainty that any study of economic and cultural contacts between Harappan and Mesopotamian Civilisations would be incomplete without inclusion of coastal trading outposts like Sotka Koh. Excavations are bound to reveal novel artefacts that have a connection with maritime trade. These excavations can also help determine the modus operandi for effective control and supervision of thriving trade, from faraway city-states like Harappa and Mohenjo-daro. It may not be an overstatement that success in Sotka Koh and other similar trading enterprises extended the power and influence of the Harappan polity at large.