

Indian Archaeology After Independence

Amalananda Ghosh and His Legacy

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Chapter 5

Ghosh and the Bikaner Survey

The Archaeologists' Craft

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The Archaeologists' Craft

Walter A Fairservis and his two associates came upon Dash-i-Margo (Desert of Death) a dead city forgotten by the modern world (...) Toward sundown one August day Fairservis began to look for a place to camp, and spotted far in the distance what seemed to be a town. Shortly they stood before an imposing ruin whose walls surrounded an area of at least 30 square miles, whose buildings must have housed and served a population of 100,000. With mounting amazement, the anthropologists drove through the silent streets between crumbling mosques, forts and palaces. They found no footprints, no campfire ashes, no signs that modern men had ever entered the place. The only living creature they saw was a desert viper (...) Mr. Fairservis guesses roughly that the city, unlisted on maps or by historians, so far as he knows, died "about the time of the Crusades" (11th to 13th Centuries A.D.). Next summer he intends to go back with a staff of archaeologists; to give the city its correct ancient name and its place in the stream of history.¹

The above is a much-abridged extract from the report in the *Time* news magazine (dated 7 Nov.1949) of the first American Expedition to Afghanistan (1949), led by Walter Ashlin Fairservis, Jr. (1924–1994). His two associates were his university mate Louis Benjamin Dupree (1925–1989) and a surveyor called Henry Hart. At the time (in 1950) when A. Ghosh and party were surveying the desolate wastes of Bikaner, east of Indus, this American Party was similarly looking for sites of pre-historic nature on equally desolate but mountainous wastes west of the Indus. They were motivated by different questions and guided by predilections of the kind that feed on publicity and sensation that had been briefly mentioned in the previous chapter and discussed in detail here. The aim is to outline the methodology or craft that archaeologists like A. Ghosh brought to Harappan archaeology and is delineated in contradistinction to the one described above. The latter half of the chapter will discuss excavations that followed in the area Ghosh surveyed.

Archaeologists' Scale

Fairservis and Dupree were both ex-US Army and graduate students at the University of Harvard. They had gotten together and had conceived an ambitious plan to explore, excavate and demonstrate the history of Asians living in the strategic junction of three cultures – Southern Afghanistan, Eastern Iran, and Baluchistan – a bridge that they thought, like many others before them, connected Mesopotamia with the Indus Valley, with sites in Iran as the middle stations. This region was considered a European ecotone and was popularised much before archaeology's birth as the last frontier of glorious Greek victories before the Common Era, not only by quasi-historic accounts of Greek historians and philosophers but also in fantastic accounts produced by white Banaras *pandits* like Colonel Wilford and James Robert Ballantyne.² This fable-mongering had already attracted explorers like Charles Masson (1800–1853), Alexander Burnes (1805–1841), and Harry Philby (1885–1960) to this region.³ Greek accounts, Biblical narratives as read by Egyptologists and Assyriologists in Egyptian, and Mesopotamian tablets and further tangible remains uncovered by archaeologists helped create this fertile yet unconquered cultural territories in the East. Most European young men dreamt of this region and yearned to make grand discoveries, gain popularity among their countrymen, and in the process also accord what they patronisingly felt a rightful place to the histories of nations who over time had fallen into a wretched abyss.

To understand this, it is recommended to take note of the driving force that motivated archaeologists who worked in India during the nineteenth and twentieth centuries. A scale can be imagined, not of ranking, but of guiding forces; an individual may fit on it anywhere and may improve one's position over time. On the one side of the scale are archaeologists primarily motivated by an urge to publicise their work and announce their achievements to the European (and later also the American) world. On the other end are those trying to understand the sites within the literary and socio-cultural context of the land. No one is any less industrious than the other yet the motives matter. Not to undermine the dedication and hard work of numerous British and other foreign archaeologists who worked in India, they generally with a few exceptions belonged to the first category. Their purpose of excavations was a journey towards a quest for personal glory. This was sustained by a sense of romance while utilising the Archaeological Survey of India (ASI) as the platform. Their audience was foreign, their antiquities meant for foreign museums, their administration of the ASI patronising and discriminatory.

It is no wonder that Marshall announced the discovery of the Indus civilisation to an English news magazine (not Indian) and while doing so he invoked 'Schliemann at Tiryms and Stein in the deserts of Turkestan'.⁴

Similarly, Wheeler, looking at Taxila for the first time, could not resist but countenance Alexander at the gates of well-fortified Indian rivals. Very soon not far from there, he turned the 'peaceful Harappans' theory of Gordon Childe on its head. He not only uncovered fortifications at Harappa initially and Mohenjo-daro later but also declared them products of fine military engineering.⁵ This imparted a Graeco-Roman terminology forever to Harappan settlement studies – that of the Acropolis or Citadel where the elite lived with military control over the grain and the God, while the artisans and commoners lived in the Lower Town, separated from the citadel by an enclosure. The Americans though came much later and added ethnography and organised sensationalism to the studies as can be gleaned from the opening quote.

The other tradition of archaeologists who located themselves deliberately at the crossroads of local literature but were no less learned in Western classics occupy the other end of the scale. Steeped in the Indian tradition, such archaeologists sought to understand their *own* past and were in a position of strength to bring an alternate point of view. They, like all other archaeologists, similarly suffered from their social and regional biases, but some among them rose to apply a constantly critical disposition to the craft of archaeology. This tradition may have begun with R.D. Banerji, or perhaps before him (see Chapter 2), carried on by subsequent generations, but the pinnacle of which was reached by A. Ghosh. Whenever two traditions clashed, the loss was on the traditional side. The ill-treatment of R.D. Banerji, Vasudev Sharan Agrawala,⁶ N. P. Chakravarti, and M. S. Vats are instances of this.

It was only the changed political circumstances, a long tenure and a maturity of thought and goodwill of personal relations, that enabled A. Ghosh to create the foundations of Indian archaeology in free India. This tradition weakened gradually and has steadily transformed the Survey into something that represents neither of the two traditions. Feeding excavation results out of cultural context or to carry out the excavations to satiate communal avarice or personal aggrandisement has been the hallmark of this decay in some of the archaeologists of free India. This breed believes in demonstration not serious publications and panders to the populist conceptions of past and occupies the other extreme of the scale.⁷ Contrary to this, the tradition that we refer to on the positive side is one that is founded in rigorous field engagement with a background in local and classical languages and literature mediated by the command of Sanskrit, Prakrit, Tamil, and epigraphy. This tradition tips the scale of the archaeologists' craft and one that has been repeatedly alluded to in this book that distinguished not only the approach to the subject but also its presentation.⁸ It is in this context that one needs to ask the question of how the Harappan archaeology done by archaeologists bred exclusively in Greek and Latin classics like Marshall, Mackay, Hargreaves, and Wheeler, who all believed in unsubstantiated gospel of Harappan connections with Mesopotamia and Aryan presence, represented a scientific streak but the Indian archaeologists using the same excavation technique,

steeped in Sanskrit classics represent a nationalist streak, one that undercuts science? This scale needs to be substantiated by examining the Survey of Fairservis and comparing it with that of Ghosh.

The Two Surveys

The French were already in the region that the Fairservis' team had targeted. *Délégation Archéologique Française en Afghanistan* (DAFA) set up in Afghanistan in 1922 on similar lines as the ones in Iran, welcomed the young Americans and opened their library for them in Kabul.⁹ They would have also briefed Fairservis and his team about the work done by them that was exclusively Hellenistic with the pre-historic finds being only a fallout.¹⁰ The American expedition was focussed on earlier periods than the French; their objective was not only to use the data towards their PhDs but primarily to publicise the journeys and supply reports and antiquities to their financier – the American Museum of Natural History (AMNH). Fairservis, son of an American actress Edith Yeager and a senior in service at Harvard and age to Dupree, was an ambitious man. On his death due to cancer in 1994, his colleagues at Vassar College, New York, read a small obituary note recounting his career.¹¹ According to it, he had an early interest in archaeology and volunteered at AMNH, New York. In 1937 he ran away from the school, got a job on a freighter heading east, jumped ship in Alexandria, and landed in Luxor to eke out a living as a tour guide. Boarding another ship, he travelled east and visited India when their vessel docked in Bombay. Once back, he enrolled in the anthropology programme at Columbia University, earning a B.A. with a smattering of Chinese and Mongolian. Soon in the army, he served as Lieutenant in the Intelligence Branch and landed in General MacArthur's staff. After the war Fairservis re-entered Columbia University and earned an M.A. in anthropology in 1948. Then he moved to Harvard, to do Ph.D. in anthropology, where he met Dupree and developed the said programme of fieldwork. Dupree was to look for the pre-historic sites in the selected region and Fairservis at proto-historic and in addition, exercise overall command. This plan was naturally not appreciated by some of the faculty members, and in the end the work was financed not by Harvard, but by AMNH. This is how the First American Expedition to Afghanistan was born in 1949.

In 1950 they would set out for a second expedition with a larger team. The results of these two expeditions were numerous but were criticised by some senior colleagues. When Fairservis submitted his dissertation to Harvard, the university had no specialist to evaluate it and asked Wheeler to undertake the examination. Wheeler had been to Iran and Afghanistan with his then recently married third wife, Kim, in the winters of 1945 and 1946. Besides honeymooning it can be assumed that he had obtained some idea of the archaeology there from the French team.¹² Because of the difference of methods Wheeler's criticism was rather harsh and as Fairservis had stepped on

many toes, his degree was postponed and finally conferred only in 1958. Dupree was less of a nuisance and was able to get his Doctorate three years before Fairservis. Though he was equally drawn by the charms of Asia that he discovered during his military service in the Philippines, it was in Afghanistan that he discovered his passion and his second wife Nancy. As a part of the Afghan expedition Dupree explored and made soundings at sites like Shamshir Ghar (Cave) and the chalcolithic site of Deh Morasi Ghundai but the results were not substantial, and he had to visit many of these sites later in his career. Only after he and Nancy had spent time in the country could he write passionately about the Afghan people and their culture.¹³ He, therefore, can be identified in later times as one who sincerely wanted to understand the history of Afghanistan, a transition from his youthful days with Walter, and a matured position on the archaeologist scale. After the Soviet invasion, considering his military background and excessive involvement in Afghanistan matters he was briefly imprisoned in April 1978 before being deported from the country. On several occasions after that he would join the Afghan *Mujaheddin* on sorties into Afghanistan. He died only a month after the Soviet withdrawal from Afghanistan.¹⁴

However, back in 1950s the young Americans (led by Fairservis) tried to attract good publicity around their adventure. The extract of the first expedition has been cited as the introductory quote to the chapter. The report in the same magazine after the second expedition (18 June 1951) was no less colourful.¹⁵

This time, accompanied by his bride of five days, Anthropologist Fairservis revisited the same mysterious area of southwest Afghanistan. Near the Bolan Pass, the expedition, came across its first big find: thirty-six sites which yielded pottery of a hitherto unknown type. On the bottom of many of the pieces were mysterious little signs, some thirty different ones, that look as if they might be the beginnings of an alphabet. Some of the sites, Fairservis believes, go back as far as 5000 B.C [probably Dera Morashi Ghundai]. Near Kandahar the party discovered pottery goddesses [most likely Zhob] with the outsized breasts that many primitive peoples worshiped as symbols of fertility. The strangest place the Fairservis expedition visited was a narrow valley near the Iranian border. Surrounded by deserts and now a barren wasteland itself. ... Civilization spread from the West along the Arabian Sea, through Afghanistan and Baluchistan into northern India. He suspects that it also spread northward into Central Asia and may have reached China through Soviet Turkestan.

Though in terms of output of antiquities around eight tons of material was shipped to AMNH,¹⁶ it remains an orphan, as the outcome of the expeditions was below average.¹⁷ Thirty-five sites were reported in the first expedition but besides unidentified pottery from the surface most were identified as only

Islamic or Islamic-structure-capped. The expedition's expectations of finding a number of chalcolithic sites in the Helmand valleys remained unfulfilled. In the second expedition Fairservis shifted south-east towards Quetta and Loralai, a familiar and safe territory already surveyed by Ross, Piggot, and Stein where the chalcolithic mounds were clearly marked. The sondages sunk in Deh Morasi Ghundai by Dupree were inconclusive; he had to take another cut in 1963.¹⁸ The material unearthed in trial trenches at Said Qala by Fairservis would have to wait re-excavation by Shaffer in 1978 to situate the site in an overall chronology of the region.¹⁹

There was also discord among the team members. The entire interpretation framework, as can be seen from the news coverage, was completely loaded with a singular 'diffusion paradigm' of pottery, antiquity, and ideas from Iraq/Iran to Baluchistan and thence to the Indus valley and in fact up to China through Turkestan, following the latter age Silk Route. The major failure of the expedition was perhaps in its misplaced objectives: that of explaining the archaeology of the region with *a priori* conclusion that it should fit as the bridge between two mega urban centres and possess only a determined (Red or Buff) ware as had been argued by Piggot, that is, Red at the Iran frontier and buff after that. The modern ethnographic understanding of pastoralism, which spread up to the Mongol plains was projected in the past and the material evidence grossly misread. There was no attempt, as Heidi Miller has pointed out, nor any conception of a possibility of trying to understand the people of the region.²⁰

A. Ghosh, on the other hand, in his second season (1951) consolidated his results (Figure 5.1) and had more than a hundred sites plotted on his map, at least 25 of these with a clear Harappan assemblage, with Kalibangan (KLB), the biggest among them all.²¹ Twenty sites of grey ware (along with red ware types) that was to become the famous Painted Grey Ware (PGW), a kind that was previously known from East Punjab and West Uttar Pradesh, but was now established towards the west for the first time (Figure 5.2). The rest were of Rangmahal type (Figure 5.3), the largest number in his discovery. He made the announcement of his results immediately on 29 December 1951 at the All-India History Congress that was held in Rajasthan at Jaipur,²² a befitting tribute to the people of the region.

Ghosh had closed the camp only two days before the Congress had gathered and must have planned himself well so as to travel and prepare the draft in time. The paper presented was, in his usual style, brief, alluding primarily to the scientific technique followed, but also including references to the classical texts. He must have emphasised in his oral delivery when he read the major result of the survey (generally printed in italics in published form) *'the discovery of these mounds brings the Harappa culture much nearer the heart of India and reveals how deeply it had taken its roots in the Indian soil'*. This term 'India' does not mean it *vis-à-vis* Pakistan as the next line clarifies 'with its centres dispersed from Baluchistan to the eastern limits of Bikaner, a distance of more than 700 miles, the culture must be regarded as one of the



Figure 5.1 Bikaner Division. General view of Fatehgarh mound with mud bricks visible in the section.



Figure 5.2 Debala Mitra (left), A. Ghosh (second from left) and other members of the survey team, 1953. (Courtesy ASI).



Figure 5.3 Pottery Sherds from Rangmahal. (Courtesy ASI).

mightiest in the ancient Orient’, the reference here, obviously is to Mesopotamia/Iran.

Having found the area between Saraswati and Drishadvati very rich in archaeological remains, for him ‘the richness’, however, did not consist only in the number of the discovered sites, be they Harappan, ‘but in their vast chronological and cultural range, for they comprised relics of several millennia of Indian history right from the Harappa period to comparatively recent historical times’. By this he meant the PGW (c. 800 BCE) and Rangmahal Ware (1st century CE onwards) that he had demonstrated beyond doubt that they followed in succession with an ample gap between them in the strata. His proposed rule that PGW using people never settled on the Harappan mounds has subsequently been found not strictly followed by a few settlers in the PGW period.²³ Of the sites surveyed and plotted by Ghosh, many have been flattened for cultivation and as they all, except Kalibangan, Rer, and perhaps Baror, were small (ranging between 1–3 hectares); they have merged in the landscape (Figure 5.4).

It seems 15 mounds that were taken up for protection under the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958 have survived well (Table 5.1).

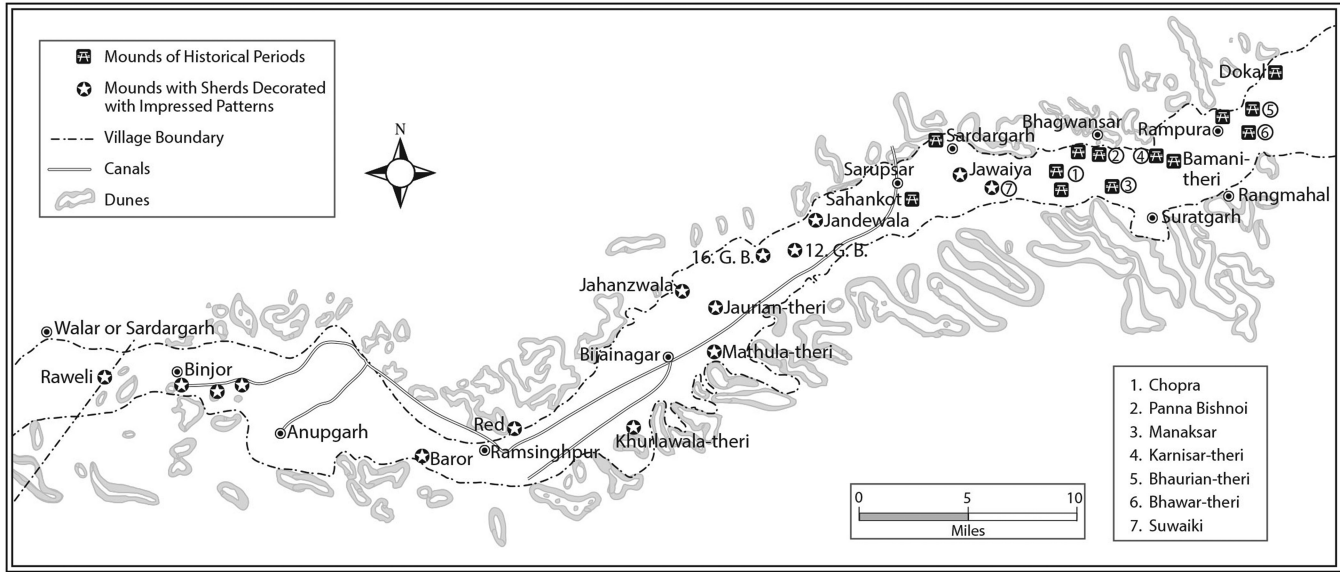


Figure 5.4 Sketch map of the Ghaggar bed from Anupgarh to Suratgarh. (Redrawn from original by Uma Bhattacharya).

Table 5.1 Centrally Protected Sites Situated in Sri Ganganagar and Hanumangarh Districts under the Archaeological Survey of India, Jodhpur Circle

Sl. No.	Location	Affiliation H-Harappan; P-PGW; R-Rangmahal	Geo coordinates	
1.	Baror, Ganganagar	H	29.168611	73.313611
2.	Bhannar Theri, Ganganagar	R	29.360007	73.922914
3.	Binjor, Ganganagar	H, P, R	29.223836 29.214384	73.127651 73.156997
4.	Chak-86, Ganganagar	P	29.237007	73.229403
5.	Mathula, Ganganagar	H	29.267806	73.565936
6.	Rangmahal, Ganganagar	R	29.344281	73.955879
7.	Tarkhanwala Dera, Ganganagar	H	29.237825	73.223804
8.	Dhokal, Hanumangarh	R	29.571856 29.568475	74.255903 74.251377
9.	Badopal, Hanumangarh	R	29.373619	74.068319
10.	Bhadrakali, Hanumangarh	H, R	29.601253	74.384017
11.	Kalibangan, Hanumangarh	H	29.473611	74.130000
12.	Manak, Hanumangarh	R	29.368187	74.023877
13.	Munda, Hanumangarh	R	29.465324	74.401918
14.	Peer Sultan, Hanumangarh	R	29.572514	74.485975
15.	Pilibangan, Hanumangarh	R	29.497778	74.085000

Excavations

The sites highlighted by the Survey and taken up immediately for excavations were Rangmahal and Kalibangan. The first by a Swedish archaeologist Hanna Rydh (1891–1964) in 1953 and the second by B.B. Lal, B.K Thapar and J.P. Joshi between 1960 and 1969.²⁴ The Rangmahal site comprises two mounds and lies at the precipice of the left bank of the River Ghaggar. In the past, it must have been an important mid-way point (perhaps on the riverine waterway), between Hanumangarh and Anupgarh, the mainstay of Rangmahal sites. A 50-m high large sand ridge 100 m towards the west of the site known as Lakha Dora overshadows it. The Swedish team found PGW on its slopes. This old sand dune must have formed a prominent landscape in the

past and is likely to have provided shelter to a number of habitations; today rural pilgrims come to worship Lakha Maharaj, a local god, at a rough and ready assemblage of bricks on the top of the dune.

Excavation at Rangmahal was a small affair, involving two trenches laid on the bigger of the two mounds (a smaller third one considered a part of the bigger one; Stein had numbered them separately as A, B, and C and a tank as F). The site was settled on the top of the smaller dune and perhaps shifted later to Lakha Dora. Excavation could reach the dune-bed 2 m below the ground, but soundings made to pierce the dune through a post-hole were not successful.²⁵ Excavated levels revealed that the first settlement at Rangmahal and other similar sites nearby were laid (or got a fillip) around CE 250. Habitation may have flourished up to the sixth or seventh century CE when the site, Hanna believes, due to slackening of water flow, was abandoned (Figure 5.5).²⁶

Among the antiquities, 105 coins of the Kushans and Murundas and a seal palaeographically datable to CE 300, have helped date the site. Eight structural phases were noticed in the strata made of mudbricks of varying sizes interspersed with burnt ones. Pottery is wheel-made, finished with red or pinkish slip and looks tantalisingly similar to that of the Harappan.²⁷ The types include globular or oval jars and cooking vessels (or *handi*) with pronounced rims, spouted vases, sprinklers, storage jars, beakers with or without handles,



Figure 5.5 Excavation at Rangmahal, 1953. (Courtesy ASI).

bowls of different varieties, lamps, incense-burners, and other similar items that are generally found from Kushan period sites like Kausambi, Ahichchhatra, and Hastinapur. The cultural assemblage also includes figurines in faience, terracotta animal figurines, carts and wheels, weights, balls, flesh-rubbers, discs, dice, votive tanks, potters' stamps, pendants, ear-ornaments, beads of coral, paste, lapis lazuli and shell; rotary querns, mullers, pestles and bone, and iron objects, again of the similar Kushan characteristics.²⁸

Kalibangan (KLB), not far from Rangmahal on the same (south) bank of the Ghaggar was the prominent Harappan site before Rakhigarhi and other sites in Haryana were brought to light by Suraj Bhan in 1972.²⁹ Its excavation reports in three parts have appeared in delayed interludes – first on Early Harappans (KLB-1) in 2003³⁰; Part I on Harappans (covering all the mounds) in 2015³¹ and Part II on Harappans as recent as 2020.³² The reports not only not present a coherent whole but conclusions also reflect evolving positions of the excavators, many of whom expired during the long publication process. From west to east the site presents a flat cemetery, two wall-enclosed mounds, KLB-1 and KLB-2 (biggest mound), and a squat unenclosed mound KLB-3 that has been identified by the excavators as a sacred area carrying ritual hearths, meant probably for people living on KLB-2. However, the site's axis is from north to south, that is the length of the settlement mounds does not run along the river but away from it. There were functional entrances facing the river, indicating engagement with it in some form. A water storage structure or tank is not reported (possibly missed) from the site but a large number of wells lined with wedge-shaped bricks must have been heavily pressed into service.³³

A furrowed field that has made the site famous must have had some arrangement with the river for irrigation, or if it was well-fed, the mechanism is not known to us. In the first season itself B.K. Thapar excavating at the eroded margins of KLB-1 could identify Early Harappan pottery that lay beneath what they identified as an abandoned layer following a seismic event. After some gap, the site was occupied by people whose cultural assemblage like pottery and other antiquities is now well known to us as representing the Harappan tradition. Thapar's important classification of the pottery from early layers into six types, A–F,³⁴ greatly aided the subsequent identification of more Harappan sites towards the east and correlation with those being found in Pakistan. Looking at KLB-1 pottery (another name for Thapar's Fabrics A–F) A. Ghosh immediately identified the same to be what he had collected from Sothi in 1951 and again in 1953. Before that time Ghosh had thought, like Stein before him, that the Harappan settlements were the earliest in the Ghaggar-Hakra basin, therefore, he had actually put finds at Sothi later in chronology (as Late Harappan).³⁵ Once seeing Sothi in a stratigraphic precedence to Harappan and a strong advocate of naming the culture with first identified site, he proposed at a conference in Deccan College, Poona 'Sothi Ware' as a collective label for Early Harappan culture. While proposing this, he also demonstrated similarity in early pottery from Pakistan as well³⁶:

The Sothi Ware of Kalibangan is found to be analogous with the pre-defence (Periano Ghundai) pottery of Harappa and also with that of the earlier (pre-Harappan) period of Kot-Diji on the left bank of the Indus in Sind. At the latter place a burnt layer separates the pre-Harappan and Harappan materials. We are told that the former appears predominantly below this layer, which may mean that it continues in the Harappan layer as well; if so the story of Kalibangan is repeated, at least partially. ... Owing to its wide distribution it is no longer possible to dismiss the [Sothi] culture as 'provincial'.

Ghosh further builds up the case for commonality of design forms in Sothi with wares covering the very tri-junction that Fairervis and team was surveying and trying to compare them with Susiana and Jemdet Nasr wares of Iran and Mesopotamia. Further attestation to this promising identification came from Katy Dalal in 1989, who later became famous for her cookbooks. A doctoral student in Deccan College in 1964 she had attended the session where Ghosh had made the proposal. As the next surveyor in Bikaner after Ghosh, she visited the same sites and equipped with the knowledge of early Harappan pottery was able to distinguish sites with Early Harappan affiliation. She also picked up sherds that were even earlier than the Early wares, and on seeing her published photographs of them Rafique Mughal from Pakistan wrote to her saying that they were 'Hakra ware', a pottery tradition that he had found in his survey of the Ghaggar bed and had established its stratigraphic precedence to pottery in North-West India of any kind in his excavation at Jalilpur.³⁷ This she has recorded in a paper presented at a conference in 1989 titled appropriately 'Sothi: a vindication of Amalananda Ghosh's theories'.³⁸

Today, the Hakra ware is a well-used term for early handmade red pottery with chaff-laden appliqué decoration representing the Pre-Harappan tradition whereas the possible label for Sothi to be a formative Harappan tradition has lost out to a more general label called Early Harappan. This practice is more in vogue for North Indian Harappan sites as during the sixties and seventies a number of pottery-specific traditions were proposed and reconciling them layer-wise became a herculean task for each new scholar. Sothi was clubbed with Siswal's layer A (site in Hissar district) and equated with KLB-1, followed by newer varieties displaying gradual degeneration with each new site moving eastwards. These cultures are conventionally called Late Harappan, having their own myriad varieties. A sample of attempted reconciliation, primarily after Suraj Bhan (1975)³⁹ is given in Table 5.2 to convey the growing complications in search of the Harappans:

However, in Gujarat provincial pre/early-Harappan traditions like Sorath, Anarta, and Padri continue to retain their separate existence more as local traditions prior to the Harappan, as the dominant and current framework of understanding chalcolithic cultural traditions, preferred by scholars located

Table 5.2 Attempted Reconciliation of Pottery Types

<i>Period of Sequence</i>	<i>Cultures</i>	<i>Remarks (after Suraj Bhan, 1975)</i>
Daulatpur II	PGW	Numerous sites in an irregular fashion on layers after late Harappans
GAP		
Mitathal II B ~ Degenerate Siswal ~ Daulatpur I ~ Bara ~ Cem. H ~ OCP (gr.A) ⁴⁰	Late Harappa	Decadent Harappa same as Lothal B, Rangpur IIB and IIC, Rojdi IB, Alamgirpur I, and Baragaon. The Late Siswal tradition survived in the sub-period but without its distinctive character. Further expansion of Late Harappan culture (possibly due to desiccation of Saraswati-Drisadvati) beyond the Sutlej-Beas Doab in the west and the Ganga Valley in the east, to the Siwaliks in the north and up to Tigrana in the south. Second phase of Harappan expansion
Mitathal IIA	Harappa	Second wave of Colonisers, carrying full-fledged Harappan repertoire from N. Rajasthan. Unrelated to KLB I, but same as KLB II, they now live with Late Siswal culture. (9 sites – all west of Yamuna only – Banawali, Rakhigarhi, Mitathal) First phase of Harappan expansion
Siswal B ~ Mitathal I	Late Siswal	Evolved expansion of KLB I culture (or Late KLB I) up to Sarangpur (reaching Siwalik) and Tigrana in South capturing lost Eastern course of Yamuna. (32 sites)
Siswal A	Kalibangan I	Colonisation by KLB I towards Ghaggar-Saraswati (16 Sites to S. West and N. East Haryana)

there. This may have its advantages; however, the survival of regional variations may not merely be contingent upon scrupulously maintained differences in pottery designs.

Having taken this long detour on Early Harappan pottery found by Thapar at Kalibangan, we look at other aspects of the Early Harappans at Kalibangan. Even before the mature phase, KLB-1 was fortified by a wall made of mud bricks and plastered with a coat of mud-plaster. Later occupants would increase the strength of the fortifications by using smaller bricks

along with regular maintenance and upkeep, indicating a continuity in concept of settlement management. The purpose of the fortifications is a debated subject. Within the walls of these fortifications houses with similar mud bricks were made, while drain and wells were lined with burnt bricks. A lane measuring 1.5 m wide east to west could be traced in early Harappan layers. Other antiquities from KLB-1 early layers included standard chalcolithic material like blades of chalcedony and chert, beads of carnelian, steatite and faience and copper artefacts like celts.

The 2015 excavation report dealt with the Harappan period occupation of the mounds in what the excavators have called Period II. In this Period starting from 2600 BCE, we see reoccupation of KLB-1 and a new settlement at KLB-2 by people adopting the Harappan tradition. KLB-3 also comes into life at this time. B.B. Lal in the introduction to the report introduces the citadel and lower town nomenclature formally for the first time into Harappan archaeology⁴¹:

Of the two parts of the new settlement, that on the east (KLB-2) was what may be called the “general” habitation area, where merchants, agriculturists and other “common men” had their houses. It has been nicknamed as the “Lower Town”, as against the other part which has been called the “Citadel”, having a relatively elevated position, high mud brick-platforms bearing special kinds of structures on them, and a complex system of fortification-walls. (In fact, this kind of differential nomenclature was started long back (1946) when Wheeler duly established the presence of a fortification wall around Mound AB at Harappa). However, it is important to note that even the so-called “Lower Town” at Kalibangan was also found to be fortified - a discovery which triggered the search for a similar feature at other Harappan sites.

The next critical aspect that Lal brings to notice is what are termed fire altars (‘in the absence of a much better term’).⁴² They are found by the excavators at almost each of the houses at KLB-2; on seven special platforms at the southern half of the citadel, possibly for the elite of KLB-1, and; again public ones for the residents of KLB-2 at KLB-3. Everywhere they are in a manner that the person attending to them has to face east. Within each of the altars found in the houses there invariably stood a stela, made of clay (sometimes burnt) measuring about 30–40 cm in height. Inside the altars there also lay a number of circular-biconvex ‘cakes’ of clay, apparently placed as offerings. These altars contained ash and charcoal showing their association with fire. That they could not have been cooking hearths, for Lal points to the existence of *chulahs* (U-shaped earthen hearths) in each house in addition to altars. In fact, we see a transition at Kalibangan from *Tandoors* (earthen oven) in the North-West corner of each house for cooking in the early layers to the *chulahs* in the Harappan (or later) layers, which are found in

association with other accessories like *chakla*, *belan*, and *tawa*, indicating a shift in food habit from eating tandoor-cooked puffed *rotis* (breads) to flat *chapatis* or *fulkas* baked on *tawa* and direct fire.

Among the altars at the citadel, he ascribes definite religious association to two, immediately south of one of them the lower half of a jar was found embedded into the ground.

It contained ash and charcoal, providing evidence that most probably fire was kept ready for the ritual. Close to these altars there was a well and a bathing pavement with drain, indicating that anyone who performed the ritual was expected to have a bath.

In the other altar animal bones of bovine and antlers were recorded. He cites similar altars at Banawali and Lothal to indicate this mode of religious worship as a common practice in the Harappan tradition. He further posits that priests lived on the citadel as large houses were found on the northern half of the citadel; they must have conducted elaborate ceremonies around those altars where a procession must have been an essential part as can be seen in a seal from Mohenjo-daro. Five altars of similar nature were exposed during the excavations from KLB-3 meant for the labour and artisan groups.

Here one may like to also bring into consideration *laddus* in a sacred context brought to light during the excavations in Binjor and referred to earlier. Was there a transition in modes of worship as well between Early and mature Harappans or the biconvex cakes found in altars were of similar nature? Or are we misreading the evidence completely under a contemporary bias? These are difficult questions to answer perhaps till inscribed material is decidedly deciphered. However, for Lal, by 2015 the answer was clear [p. 20]:

Since the Sarasvati was a mighty river flowing during the Rigvedic times and it dried up around 2000 BCE, the *Rigveda* has got to be earlier than 2000 BCE. How much earlier, it is anybody's guess. According to the famous Nadi-stuti Sukta of the *Rigveda* (RV 10.75.5–6), the area occupied by the Rigvedic Aryans extended from the upper reaches of the Ganga - Yamuna on the east to the Indus and its western tributaries on the west. If a simple question is now posed, viz. which archaeological culture flourished in this very area during the pendency of the Rigvedic times, i.e. prior to 2000 BCE, the inescapable answer will have to be: The Harappan Culture. In other words, the Harappan Culture and Vedic Culture are just two faces of the same coin.

Part II of 'the Harappans' report (2020) expands on the excavated details of lithic, beads, toys, and cemetery material; the overview offered by Lal in Part I remains unaltered. However, for our purpose it is a useful volume as the diaries of A. Ghosh's survey in the region (1950–51) are made available in it. One would have expected to learn from the excavators if there was any

change in thinking regarding their understanding of the past climate and the Ghaggar. This is an important aspect and impinges upon Harappan archaeology in general. The question from the beginning regarding north-west Rajasthan, extending up to south Pakistan has always been what kind of river was Ghaggar or Saraswati? Did it flow the way it is described in textual sources? Here the evidence is varied and interpretations contested. But let's take the climate first.

There was a long tradition of thought contributed by Cunningham (1871),⁴³ surveyor (R.D. Oldham, 1886),⁴⁴ and oriental scholars (C.F. Oldham, 1893⁴⁵ and H.G. Raverty, 1892)⁴⁶ that had proposed a wetter paleoclimate during the Holocene (and till later times even up to the mediaeval) a matter of agreeable fact. Marshall, Vats, Sahnii, Hargreaves, and others including Fairervis, Ghosh, and Lal have worked in the field on this basis. However, by the time Kalibangan was being excavated, Robert Lawrence Raikes, a hydraulics engineer from Britain, had captivated attention of all influential archaeologists including Wheeler and most in ASI. Through drilling into the ground and studying the sediments he was able to make contrarian conclusions. After spending time in Baluchistan and assessing inferential interpretations like availability of jungles to provide fuelwood for burnt bricks, marshy animals on seals, and *gabarbands* for damming water,⁴⁷ he made the pronouncement that present climatic conditions were already established in the Holocene.⁴⁸ This was a disruptive shift in Harappan archaeology which lasted till 1971 when Gurdip Singh rekindled the possibilities of wetter climate in the Holocene once again.⁴⁹ It took one more decade after that to accept the evidence in favour of an optimum climate by Mid-Holocene.⁵⁰

Regarding the Ghaggar river however Raikes' approach, at least, was right in gathering evidence from the field (rather than based on pollen data and counting ice rings from far-off places) but the results were misleading. He made drillings in Kalibangan and 'found at a depth of about 11 metres below the present flood plain of Ghaggar river a coarse sand very similar in mineral content to that formed in the bed of the present-day Yamuna'.⁵¹ Since the date of the layer at which this Yamuna-like coarse sand was found remained unknown (with no OSL technology), Raikes on the basis of various layers of his core sediment but primarily taking into account archaeological evidence from Kalibangan and other Harappan sites concluded that before 2000 BCE both the Sutlej and the Yamuna drained into the Saraswati (cited by Lal, above). He could not however provide the dates of how much before 2000 BCE the Ghaggar was joined by the Yamuna and/or the Sutlej. Lal called it anybody's guess. This lacuna was made good by extrapolating archaeological dates – a fully flowing Ghaggar from Early to Mature Harappan and decline in flow from 2000 BCE. This method still holds sway but is becoming problematic in the light of new evidence.

Recent geological studies give a different picture. Saini et al. (2020)⁵² on a multi-parameter analysis including available OSL dates and more dates from five new critically chosen core-samples from potential paleochannels, climate

change data, and tectonic fault studies in the region proposes considerable drying up of the Saraswati Paleochannel during 15 to 5 ka (i.e. between 13,000 and 3000 BCE). More consolidated results are from a study by Khan et al. (2024)⁵³ that based on sedimentary archives, and six new cores concludes that the Saraswati paleochannel became dry because of ‘avulsions of the paleo-Yamuna (at ~18 ka) and paleo-Sutlej (at ~8 ka). This suggests that the Ghaggar-Hakra system was completely defunct by the early Holocene, and, therefore, the availability of a mighty Saraswati River was not a consideration in site selection for Chalcolithic societies in the region and nor did its earlier posited drying at around 1900 BCE cause the decline of the Harappan civilisation. There are also opposite views that may be considered, but the arguments in opposition seem weak.⁵⁴

If the above-cited studies of Saini and Khan are taken as indicative, then we have a new kind of problem on our hands. It was initially believed that the mighty Saraswati mentioned in the *Rigveda* may have been in spate during 1500 BCE (traditional date of the Aryans). Then, as we have seen above, Lal and many other archaeologists have been of the opinion that Harappans and Vedic people were faces of the same coin thereby accepting that the Saraswati was a mighty river in the Harappan period when sites like KLB were occupied. Now, if the *naditame* Saraswati became rain-fed around 6000 BCE itself (being deserted by the perennial Himalayan rivers, first the Yamuna and then the Sutlej), then the only people who could have seen the river in spate covering the wide bed of Ghaggar may have been the Pre or Early Harappan/chalcolithic people. Or is this a complete imagination, a figment of fantastic coincidence? A tale may be, heard from the neolithic ancestors? This is a difficult question indeed.

The objectives of this chapter have been modest and limited to placing the Bikaner survey of Ghosh and his team in the context of developing studies of the Harappan period, and the extent to which it raised larger issues with reference to the environment. This contrasts with the approach generally adopted on the subject, which has tended to project the survey as an exercise in Indian nationalism after the Partition of the subcontinent which resulted in a loss of Harappan sites to Pakistan. A significant difference is apparent in the approach of A. Ghosh to understanding the longer cultural context of surveyed sites in Bikaner with the text-based connections made in the report on the excavations at KLB (Kalibangan). This is a theme that is taken up for discussion in Chapter 9.

Notes

- 1 <https://time.com/archive/6603441/science-city-of-death/> Accessed on 12.10.2024.
- 2 C.A. Bayly, *Orientalists, Informants and Critics in Benares, 1790–1860. Perspectives of Mutual Encounters in South Asian History 1760–1860*. Leiden, The Netherlands: Brill. 2000. https://doi.org/10.1163/9789047400523_010.
- 3 Gordon Whitteridge, *Charles Masson of Afghanistan: Explorer, Archaeologist, Numismatist, and Intelligence Agent*. Aris & Phillips, 1986: 4.

- 4 Sir John Marshall, "First Light on a Long-Forgotten Civilization: New Discoveries of an Unknown Prehistoric Past in India." *The Illustrated London News*, 20 Sept. 2024.
- 5 Mortimer Wheeler, *My Archaeological Mission to India and Pakistan*. Thames and Hudson, 1976, pp. 69–71.
- 6 Thoroughly steeped in Sanskrit literature and grammar, one of the finest experts in iconography and a curator of high order, decided to leave ASI from the post of Superintendent Central Asian Antiquities (C.A.A) Museum as he got into some disagreement with Wheeler and his immediate successor N.P. Chakravarti on 30.08.1951. N. Kumar, *Dr. Vasudevsharan Agrawal: Vyaktitva evam Krutitva*. Indo-Vision Pvt. Ltd, 1985: 21 [in Hindi]. Even before this when he was the curator of Mathura Museum (1931–34 and 1935–46) he got into a clash with the then Collector of Mathura in 1934 over his wearing of Indian traditional dress – *dhoti-kurta* – during the Governor's visit in the winter of year 1934. He resigned from the post in protest on 21.01.1934. He rejoined the Museum on 23.05.1935 when the new Collector, one Mr. Ross apologised and requested for him to come back. Wheeler, *My Archaeological Mission to India and Pakistan*. pp. 18, 26.
- 7 Eram Agha, Site of Deceit: How the Archaeological Survey of India fortifies Hindutva History, *Caravan*, 1, January 2025.
- 8 Though in linguistics most men, if not all, borrowed mostly from Western tradition of Indo-Aryan historical linguistics and the spread of languages through arrival of Aryans as invaders or migrants in around 1500 BCE, coeval with the dating of the Rigveda. [discussed later].
- 9 A. Perkins, Archaeological News. *American journal of Archaeology*, 55(1), (1951): 97–98 <https://doi.org/10.2307/501184>.
- 10 Alfred A. Foucher, A. Godard, Joseph Hackin, and Jules Barthoux of the French Team had surveyed the terrain by following the ancient trails of Buddhist monks, Chinese pilgrims, and various invaders from the first c. BC to the fifth c. AD who left written records, following Cunningham and, had not only explored stupas, monasteries, and other structures but had also excavated Buddhist monasteries at Hadda, Bamiyan, Kakrak, and Guldarra. They must have informed with pride of their recovery of fabled Begram ivories and that half of that already transported to Musée Guimet in Paris. Another half left for Kabul Museum will subsequently be looted and reach British Museum by 2011 <https://www.theguardian.com/artanddesign/2011/feb/27/afghanistan-begram-ivories-exhibition-rescue>. Accessed on 12.10.2024.
- 11 <https://pages.vassar.edu/aevc/files/2023/05/Walter-Fairservis.pdf> Accessed on 12.10.2024.
- 12 J. Hawkes, *Mortimer Wheeler: Adventurer in Archaeology*. Weidenfeld and Nicolson. 1982: 247–253.
- 13 Dupree, L. (1980). *Afghanistan* (Course Book ed.). Princeton University Press.
- 14 Dupree Nancy Hatch, "Louis Dupree – American Lover of Afghanistan," *Central Asia* (Peshawar), 33, winter 1993, p. 129.
- 15 <https://time.com/archive/6617295/science-journey-to-afghanistan/> Accessed on 12.10.2024.
- 16 Now in Peabody Museum since 1989.
- 17 H. J. Miller, The Archaeological Expeditions to Afghanistan (1949–1951) by the American Museum of Natural History (New York) and their Orphaned Archaeological Collections. *Iran & the Caucasus*, (2), 2021: 99–114. <https://doi.org/10.1163/1573384X-20210202>.
- 18 L. Dupree, *Deh Morasi Ghundai: a chalcolithic site in south-central Afghanistan*. American Museum of Natural History, 1963.
- 19 Jim G. Shaffer, *Prehistoric Baluchistan: With Excavation Report on Said Qala Tepe*. B.R. Pub. Corp., on behalf of Indian Society for Prehistoric and Quaternary Studies, 1978.

- 20 Shaffer, *Prehistoric Baluchistan*, 108.
- 21 Ghosh, in his writings always referred to the sites by the Harappan nomenclature, avoiding deliberately the term Indus Valley. An almost similar approach is visible in Mackay's writings.
- 22 The paper subsequently published in a number of journals and as part of books: Amalananda Ghosh, Appendix C: Explorations in Bikaner. Henry Field, *An Anthropological Reconnaissance in West Pakistan*, 1955, Cambridge: Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, 1959: 212–215; A. Ghosh, (1953). Exploration in Bikaner. *East and West*, 4(1), 31–4; A. Ghosh, (1989). The Rajputana Desert: Its Archaeological Aspect. In S. P. Gupta (Ed.), *An Archaeological Tour Along the Ghaggar-Hakra River by Marc Aurel Stein* (pp. 180). Kusumanjali Prakashan; Appendix to *Kalibangan Excavation Report-II* (2020): 1489–1574 (along with the Tour diary).
- 23 In a recent re-survey by Deccan College students in 2021 in the same region covered by A. Ghosh some five sites – 15/4 GB, 18 GB, 40 GB, 59 GB. and 74/2 GB have been found with PGW overlay of the Pre/Early Harappan horizon. Similarly, there are around seven sites in which along with Pre/Early Harappan and Mature Harappan material PGW pottery were also found beneath PGW layers. Chander Shekhar Singh, and Asif Mohinuddin. “Preliminary Studies on Exploration in Middle Reaches of Ghaggar River Basin.” *Ancient Asia*, vol. 12, 2021, p. 15, doi:10.5334/aa.214.
- 24 After starting the season in 1960–61, B. B. Lal had to go to Nubia as part of the UNESCO salvation project to excavate at Afyeh and Tumus. He rejoined the excavation team from the third season (1962–63).
- 25 Hanna Rydh, *Rang Mahal: The Swedish Archaeological Expedition to India, 1952-1954*. Glerup, 1959. Hanna. *Acta Archaeologica Lundensia. Series in 40; No. 3*, p. 47.
- 26 Rydh, *Rang Mahal* 33, 181.
- 27 This similarity had baffled Hanna, and she painstakingly gathered a list of similar motifs between the two such as hatchings, chequers, flowers, leaves, and birds, fully realising that a time gap of 2000 to 2500 years lies between the two cultures. This large vacuum made her feel that an existing pottery tradition between the two was well-nigh impossible. Though A. Ghosh had ascribed a process of atavism to explain this and Sankalia had suggested a continuity through Cemetery H, but this indeed remains a mystery and a process less understood. See Katy Nariman Frenchman, “Prehistoric Pottery Industries Along the Lost Sarasvatl River of the Great Indian Desert.” Deccan College, Theses, Ph.D., University of Poona, 1972, p. 91. [Accessed 3 Jan 2025]; also, A. Ghosh, “Exploration in Bikaner.” *East and West*, vol. 4, no. 1, 1953, pp. 31–34.
- 28 Rydh, *Rang Mahal*: 148.
- 29 Suraj Bhan, *Excavation at Mitathal (1968) and Other Explorations in the Sutlej-Yamuna Divide*. Kurukshetra University, 1975.
- 30 B. B. Lal, et al. *Excavations at Kalibangan: The Early Harappans, 1960–1969*. Director General, Archaeological Survey of India, 2003.
- 31 B.B. Lal, et al. *Excavations at Kalibangan: The Harappans, 1960–1969: Part I*. Archaeological Survey of India, 2015.
- 32 B.B. Lal, et al. *Excavations at Kalibangan: The Harappans, 1960–1969: Part II*. Archaeological Survey of India, 2020.
- 33 Lal, *Excavations at Kalibangan*: 5.
- 34 See characteristics of fabrics A-F in *Indian Archaeology 1960–61 – A Review*, 31–32.
- 35 Katy Nariman Frenchman, Prehistoric Pottery Industries Along the Lost Sarasvatl River of the Great Indian Desert *Deccan College*, vol. Ph.D, University of Poona, 1972. general editor, V.N. Misra, 3 Jan 2025: 84.

- 36 V. N. Misra and M. S. Mate edited, *Indian Prehistory: 1964*. Deccan College Postgraduate & Research Institute, 1965: 115.
- 37 M. Rafique Mughal, "New Evidence of the Early Harappan Culture from Jalilpur, Pakistan." *Archaeology*, vol. 27, no. 2, 1974, pp. 106–13.
- 38 Katy Feroze Dalal, "Sothi: A Vindication of Amalananda Ghosh's Theories." *Indo-Iran International Congress Proceedings*, K.R. Cama Oriental Institute, 1989, pp. 190–98.
- 39 Suraj Bhan, *Excavation at Mitathal (1968) and Other Explorations in the Sutlej-Yamuna Divide*. Kurukshetra University, 1975.
- 40 Ochre Coloured Pottery (O.C.P) of Group A are those found west of Yamuna, of the Saraswati-Ghaggar Doab, reported from Punjab and Haryana sites (with Copper Hoard items from Mitathal, Rakhigarhi, etc.).
- 41 B.B. Lal, et al. *Excavations at Kalibangan: The Harappans, 1960-1969: Part I*. Archaeological Survey of India, 2015, p. 3.
- 42 Lal, *Excavations at Kalibangan*: 5.
- 43 Alexander Cunningham, *The Ancient Geography of India: The Buddhist Period, Including the Campaigns of Alexander, and the Travels of Hwen-Thsang*. 1871.
- 44 R.D. Oldham, "On Probable Changes in the Geography of the Punjab and Its Rivers: An Historico-Geographical Study." *Journal of the Asiatic Society of Bengal*, vol. 55, 1886, pp. 322–43.
- 45 C.F. Oldham, "The Saraswati and the Lost River of the Indian Desert." *Journal of the Royal Asiatic Society*, vol. 25, no. 01, 1893, pp. 49–76.
- 46 H. G. Raverty, *The Mibrán of Sind and Its Tributaries: A Geographical and Historical Study*. 1892.
- 47 John Marshall, *Mohenjo-Daro and the Indus Civilization: Being an Official Account of Archaeological Excavations at Mohenjo-Daro Carried out by the Government of India between the Years 1922 and 1927*. A. Probsthain, 1931, p. 2.
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- 49 Gurdip Singh, "The Indus Valley Culture: Seen in the Context of Post-Glacial Climatic and Ecological Studies in North-West India." *Archaeology and physical anthropology in Oceania*, vol. 6, no. 2, 1971, pp. 177–89, doi:10.1002/j.1834-4453.1971.tb00134.x.
- 50 See rebuttal of Gurdip Singh in V.N. Misra, "Climate, a Factor in the Rise and Fall of the Indus Civilization-Evidence from Rajasthan and Beyond." *An Archaeological Tour Along the Ghaggar-Hakra River by Marc Aurel Stein*, Kusumanjli Prakashan, 1989, pp. 125–71.
- 51 B. B. Lal, and India Archaeological Survey of. *Excavations at Kalibangan: The Early Harappans, 1960-1969*. Director General, Archaeological Survey of India, 2003, p. 5.
- 52 H.S. Saini et al. "The Lost Saraswati River of Northwestern Indian Plains: Status and Way Forward." *International Union of Geological Sciences*, vol. 43, no. 1, 2020, pp. 524–34, doi:10.18814/empings/2020/020034.
- 53 Imran Khan, et al. "Landscape Evolution of the NW Himalayan Rivers during the Late Quaternary and Their Non-Contemporaneity to the Harappan Civilization." *Quaternary Science Reviews*, vol. 331, 2024, p. 108622, doi: <https://doi.org/10.1016/j.quascirev.2024.108622>.
- 54 K. S. Valdiya, *Prehistoric River Saraswati, Western India: Geological Appraisal and Social Aspects*. 1st 2017. ed., Springer International Publishing, 2017. *Prehistoric River Saraswati, Western India: Geological Appraisal and Social Aspects*.