

Tracking the Kingdom of Pāradān in Balochistan Through Contextualization of the Early Historic/ Buddhist Material Culture from Systematic Archaeological Survey at District Loralai, Pakistan

Muhammad Zahir

Associate Professor, Department of Archaeology, Hazara University, Mansehra, Pakistan and Affiliate Researcher, Department of Archaeology, Max Planck Institute for the Science of Human History, Jena – Germany.

Muhammad Adris Khan

Research Scholar, Department of Archaeology, Hazara University, Mansehra, Pakistan.

Abstract:¹

Balochistan is known generally for the Neolithic and Pre-Harappan cultures within the archaeology of South Asia. The region has not been incorporated within the discourse on the spread and development of Buddhism or Buddhist material cultures. Our systematic transect survey at Tehsil Bori of District Loralai revealed 26 archaeological sites. The survey produced 13 multi-periods and 8 single-period sites, including 6 Kot Dijian and 5 Harappan sites. All multi-period sites, except one, had early historic/Buddhist material culture. These sites were located within two distinct landscape and altitudinal settings. The presence of a relatively large number of Buddhist sites in the Balochistan and adjoining regions likely corresponds to the geographical extent of the poorly studied early historic state of Pāradān, with Loralai as the core region.

Key words: Tehsil Bori; Loralai District; Buddhism in Balochistan; Transect Survey; Systematic Survey; Settlement History; Buddhism; Historic Pottery; Stamped Ware; Rope Ware; Pāradān; Pāratarajas;

Introduction

Balochistan is the largest province of Pakistan in terms of land area and primarily consists of barren and thinly populated areas with abundant natural and cultural resources. Presently, Balochistan is administratively divided into 33 districts. District Loralai is located in the north-east of the province and is further sub-divided into Bori tehsil and Makhter sub-tehsil (Fig. 1). Except for a few spectacular and well-studied sites, archaeological research in Balochistan has remained sporadic at best (Khan M. , 2002, p. 145). Systematic transect survey in archaeology is a relatively new concept in Pakistan and it has not been carried out in Balochistan, Punjab and Sindh provinces of Pakistan (Zahir & Khan, 2018). Most of the systematic transect surveys have been carried in Dir, Chitral and Upper Kohistan districts of Khyber Pakhtunkhwa province (Ali et al., 2009; 2010; Ali et al. 2016; Samad, et al., 2012). The present research, making use of the systematic transect survey, was the first of its kind to be carried out in Tehsil Bori of District Loralai and Balochistan.

District Loralai includes both perennial and seasonal streams, mountain valleys and mountain ranges with Koh-i-Suleman, the southern extension of the Hindukush mountain ranges, as the most important mountain range (Zahir & Khan, 2018, pp. 2 – 3). District Loralai is approximately 10000 square kilometres in area and it is spread between longitudes 67° 43' E and 70° 18' E and latitudes 29° 37' N and

¹ Acknowledgement

The authors are thankful to all the team members, friends and colleagues at the Department of Archaeology, the Loralai district police and administration for extending help and support during the survey work. We are thankful to Dr. Mumtaz A. Yatoo and Dr. Ijaz Khan for extending all possible support. We are thankful to Ms. Feryal Ali Gauhar, Dr. Astha Dibyopama and Dr. William Taylor for improving the draft of this paper. We are also thankful to our friend, Mr. Abdul Haseeb Khattak, for his help with the figures.

31° 27' N (Baloch, 2011, p. 3; Pakistan Bureau of Statistics, 2020; Zahir & Khan, 2018, p. 3). The region has a dry and cold climate varying across elevation; the summer season is generally pleasant and cold in its high altitude areas, while the winter season is extremely cold with strong Siberian winds and heavy snowfall (Baloch 2011, pp. 2, 4; Zahir & Khan, 2018, p. 3).

As a region, Loralai-Zhob links the plains of the Indus River in Sind with southern Afghanistan (Dani, 1965-66, p. 228). Along the Quetta valley, the area spans the Bolan and Gomal passes that connect the regions of Balochistan and beyond with the interior Punjab and India across the Indus River (Dani, 1965-66, p. 228). As a result, the Loralai-Zhob region historically acted as a cultural conduit between the Iranian plateau, Afghanistan, Sind, Punjab and Khyber Pakhtunkhwa provinces of Pakistan. Using systematic transect survey, we report newly documented Buddhist material culture from Tehsil Bori, contextualizing these discoveries with known early historic/Buddhist material culture from the Loralai region and adjoining regions, and

exploring possible connections with the early historic kingdom of Pāradān.

Research Context

The modern district of Loralai region and its precursors, entered the archaeological discourse of South Asia through the discovery of the first early village sites of Dabar Kot in 1893, Periano Ghundai in 1897 and Rana Ghundai in 1898 by Fritz Noetling (Noetling, 1898a, pp. 250-251; 1898b, pp. 461-471; Zahir & Khan, 2018, p. 4). Sir Marc Aurel Stein conducted extensive surveys in the region in 1904 and he excavated these three sites along with the site of Sur Jangal in 1927 (Stein, 1904-05, pp. 45-46; (1929, pp. 52-54). The site of Dabar Kot helped to establish the cultural profile of Loralai region. Stein's excavations (1929, pp. 52-55) at the site revealed mud brick architecture and fired brick-made drain in the middle of the exposed structures, along with the findings of terracotta figurines of Zhob, the famous Zhob mother goddesses), a compartmented seal and Harappan bangles.

One of the most important early historic period excavations in the Loralai region was at the site of Tor Dherai or Tor Dheri. Tor Dherai, or the 'Black Knoll', was located on the left bank of the Thal River in the Loralai region, on the southernmost end of the rugged hill chain of *Toran-ghar* (Stein 1929, p. 64). The site was situated at the head of the local canals that irrigated the Thal plains of Loralai (Stein, 1929, p. 65). At the base of the hill, with Tor Dherai site on its top, Stein (1929, p. 64) discovered petroglyphs of horsemen, Swastika symbols and graffiti of possible Nagari script on tufa rocks (Stein, p. 64). The Buddhist site of Tor Dherai was initially discovered due to the presence of carved stones on top of the hill with Buddhist floral designs bearing similarities with Gandharan architectural decorative elements.

Subsequent excavation of the site led to the discovery of a platform of dressed stones, with a height of 4 to 6 feet and measuring 47 x 54 square feet (Stein, 1929, p. 65). The platform was decorated with mouldings, diminishing in size with height, along with pilasters and stucco decorations. The base of the Tor Dherai stupa incorporated a staircase from the east, similar



Figure 1: The location of modern district Loralai, Balochistan, Pakistan.

to most of the Buddhist stupas in the Gandhara and Taxila regions. The rectangular platform was topped by a round base and incorporated a staircase form the north-east direction, suggesting a likely function as a stupa, in the manner of the Gandharan stupa construction tradition (Stein, 1929, p. 66). From the middle of the stupa, Stein (1929, pp. 66-67) recovered a ceramic relic casket containing bone fragments, seven small jewels in gold settings, two crystal and onyx beads along with three coral beads, fifteen perforated metal cubes, two perforated stones or possible loom weights and seventy-two pearls of variable sizes. The later Muslim inhabitants of the region repurposed the dressed and decorated stones, and stucco decoration, from the Buddhist stupa for the construction and decoration of two mosques (Stein, 1929, p. 67). This is perhaps the only case of the discovery of a relic casket from in situ deposition since the beginning of the archaeological research in the late 19th century CE in Balochistan. No Buddhist sculptures or its fragments were discovered during these excavations and their absence, if these were made of stucco, may have been due to the removal of stucco from the site by later inhabitants for use in whitewashing.

The most important findings from the site included the discovery of 50 potsherds with Kharoshthi and Brahmi inscriptions (Stein, 1929, p. 68). A total of 45 Kharoshthi and 5 Brahmi inscriptions, in strongly Sanskritised Prakrit language, recorded the presence and dedication of a *prapa*, or watering place for humans and animals, by Yola Mira Shahi (Konow, 1929, pp. 93-94; 1929, p. 175; Stein, 1929, pp. 68-69). The Tor Dherai stupa and monastery, originally known as the Yola Mira Shahi Vihara, apparently belonged to the followers of the Sarvastivadin Buddhism and was used between the 1st and 4th centuries CE (Konow, 1929, pp. 93-95; 1929, pp. 174-175; Stein, 1929, p. 68). Konow (1929, pp. 174-175) postulated that the Loralai Buddhists came from Sind during the expansion of the Kushan empire and that the inscriptions related to the time of the Kushan king Vasudeva or later. However, architectural elements discovered from the site suggested a strong link with Gandhara rather than with Sind. In Konow's view, the protagonist of the inscription, Yola Mira Shahi, was thought to be a local Kushan subordinate governor or chief (Konow,

1929, p. 175) The establishment of *prapa*, meaning a 'water saloon' or 'a shed on the roadside containing a reservoir of water for travellers' was a reflection of the extremely arid landscape of Loralai (Konow, 1929, p. 175).

Walter A. Fairservis excavated the site of Dabar Kot, following Aurel Stein excavations. He concluded that all the cultural materials from the site had been mixed (Fairservis, 1959, pp. 293-308). Fairservis recorded the presence of a storage jar of Buddhist type (Fairservis, 1959, pp. 308-311). However, the most important finding from the site was the discovery of what he considered as Buddhist inspired figurines and an eroded sandstone with Buddhist reliefs (Fairservis, 1959, p. 311). Fairservis, in his review of the works of Aurel Stein and E. J. Ross, suggested that all the cultural phases represented by the pottery found at Sur Jangal and Rana Ghundai were also represented within the pottery assemblage of the Dabar Kot site. Thus, the Buddhist wares were also recorded from the sites of Rana Ghundai period V and Dabar Kot period IV (Fairservis, 1959, p. 322).

In 1972, Muhammad Rafique Mughal re-examined the site of Rana Ghundai and collected the pottery and other cultural material from the already exposed stratigraphic contexts (Mughal, 1972, pp. 142-143). He also studied the material culture from the site of Dabar Kot and suggested that the site of Dabar Kot was occupied from at least the middle of fourth millennium BCE through the medieval period (Mughal 1972, pp. 143-144). Mughal (Mughal, 1972, pp. 147 – 149) recorded the presence of Buddhist wares at many sites in the Loralai region, including the sites of Bala Spina, Ghalawa Ghundai and Sinjavi Ghundai.

The discovery of Kharoshthi inscriptions and early historic rock carving by Mian Said Qamar in 1984 in the vicinity of Tor Dherai was particularly important. Rock carvings documented by Qamar included images of individual humans and animals, as well as those in groups. The human figures could be classified into two categories. The first category consisted of individual human figures, while the second consisted

of horse-riders (Qamar, 1986, pp. 168-178). These carvings seem to be recorded within the same area where Sir Aurel Stein (1929) found the Nagri inscriptions, horsemen figures and swastika symbols. In addition, these figures bear close affinities to the petroglyphs in the Gilgit-Baltistan region, which were mainly linked with the presence of Buddhism

Pottery Types	Sur Jangle		Rana Ghundai		Dabar Kot	
	Presence	Period	Presence	Period	Presence	Period
Prehistoric Wares	x	-	✓	I a	X	-
Prehistoric Wares	✓	I	✓	I b	X	-
Prehistoric Wares	✓	II	✓	II	X	-
Prehistoric Wares	✓	III	✓	III	✓	I
Harappan Wares	x	-	✓	IV	✓	II
Post Harappan Painted Wares	x	-	✓	IV	✓	III
Early Historic/Buddhist Wares	x	-	✓	V	✓	IV

Table 1: Comparative Stratigraphy of the three type-sites of Loralai region, currently in District Loralai, Ziarat and Duki (adapted from Fairservis, 1959, p. 322; Zahir & Khan, 2018, p. 9)

in the region and may belong to the same religious, cultural and socio-economic contexts.

During the winters of 2015, we conducted a transect survey at Tehsil Bori, District Loralai and reported 26 new archaeological sites (Zahir & Khan, 2018, p. 10; 2020, p. 350). These sites ranged in time from the local protohistoric Baluchi cultures, Kot Dijian culture, and Indus Civilization to the early historic/Buddhist period. The analysis of the material culture, particularly the ceramic assemblage, revealed half (n=13) of these as multi-period sites and 8 as single-period sites. The material culture from the remaining sites was not diagnostic and could not be assigned to any chronological period (Zahir & Khan, 2018, p. 10). The existence so many multicomponent sites testifies to the continuity of human settlements and landscape choices for thousands of years in this region (Zahir & Khan, 2018, p. 10). The present paper is a result of this survey, exploring the early historic/Buddhist material culture, primarily pottery collections. An effort is made to contextualize these with previous research in the region and the early historic kingdom of Pāradān.

Research Approaches

Balochistan in general and the Loralai region in particular have been explored through the village-to-village surveys in the past (Zahir & Khan, 2018, p. 6). Such surveys, despite their accompanying biases, have generated a remarkable amount of knowledge, with some limitations, about the archaeology of Balochistan. The systematic transect survey, in contrast, provides archaeologists a tool to sampled information from a large region through walking in regularized transects, using handheld Global Positioning System or GPS and recording features of the sites (Ali et al. 2010, p. 138; 2009; Burke & Smith, 2004, p. 65; Yattoo, 2012, p. 110; Zahir & Khan, 2018). Through the application of both random and non-random systematic survey methodologies, 22 transects were positioned in 5 different localities of Tehsil Bori (Zahir & Khan, 2018, p. 7; Fig. 2). The transects were placed around villages Dargai Sargah (transect points AD1 to AD10), Dargai Kudazai (AD11 to AD20), Mahool Shaikhan (AD21 to AD30), Barnima (AD31 to AD40) and Shabozai (AD41 to AD44) (Zahir & Khan, 2018, p. 7).

Due to the adverse law and order situation in 2015, we were only able to conduct the survey of 10 transects (5 transects from AD1 to AD10 and 5 transects from AD21 to AD30) near village Dargai Sargah (Fig. 3) and Mahool Shaikhan (Fig. 4) respectively (Zahir & Khan, 2018, p. 8). Each transect was surveyed by a group of 4 to 6 team members, covering an average of a 20 metre wide and 5 kilometre long area (Zahir & Khan, 2018, p. 8). A total of 100 hectare area (10 transects by 20 metres in width and by 5,000 metres in length for each transect) was surveyed, exploring nearly 20,000 hectare area around these two villages (Zahir & Khan, 2018, p. 8).

Potsherds and lithic tools were collected during the survey. We collected diagnostic or non-random samples, such as rims, bases, body-sherds with painted, incised or applied decorations at all the discovered sites (Zahir & Khan, 2018, p. 8). In the absence of datasets and absolute chronological frameworks, chronological estimates for these newly discovered sites, is based upon Fairservis's

(1959) chronological typology. This transect survey revealed 23 new archaeological sites, along with three sites through village-to-village survey (Zahir & Khan, 2018, p. 10). These three sites were Shabozai Ghundai, Dowa-Sarkan Ghundai and Barnima Ghundai (Fig. 5).

Previous researchers classified Buddhist sites within Loralai region on the basis of pottery assemblages. Two diagnostic pottery types, stamped and rope

wares, were used for classification of the early historic and Buddhist sites within and outside the Loralai region in Balochistan. 'Stamped ware' refers to a pottery decorative technique wherein pottery vessels were marked on the exterior with concentric circles, dragged comb-teeth, sun ray, and leaf impressions (Fairservis, 1956, p. 338). However, stamped ware was not just limited to the designs mentioned by Fairservis and it probably meant that an indented impression was created using a cut-out



Figure 2: Placement of 22 transects at 5 locations within Tehsil Bori, District Loralai

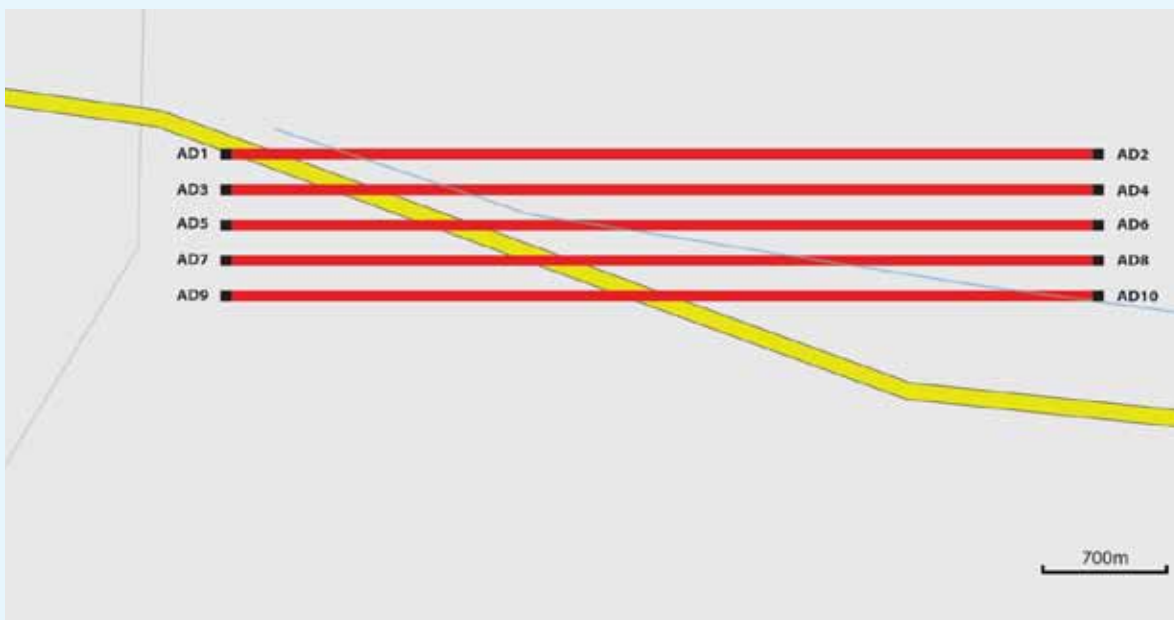


Figure 3: Location of 5 transects, AD 01 to AD 10, near Dargai Sargarh village



Figure 4: Location of 5 transects, AD 21 to AD 30, near Mahool Sheikhan village

or template in any shape or form. Stamped ware from Balochistan was similar to, and contemporary with, stamped pottery from Taxila and Udyâna valleys that originated from 2nd – 3rd century BCE and continued till the Islamic period (Fairservis, 1956, p. 338 – 339; Marshall J. , 1951, p. 400; Stein, 1930, pp. 21, 49, 74). John Marshall (1951, p. 400) suggested that the tradition of stamping of wet clay

was initially introduced by Greeks and that it was readily adapted by the local artists. ‘Rope ware’, the second type of diagnostic ware, can be distinguished by raised band(s) with parallel oblique incisions in a rope-like appearance (Fairservis, 1956, p. 340). Both of these wares were also found within the excavations of Buddhist sites at Charsadda (Marshall & Vogel, 1904).



Figure 5: Location map of archaeological sites through transect survey, Tehsil Bori [DSL: Dargai Sargah Line; ML: Mahool Shaikhan Line; SG: Shabozai Ghundai; DSG: Dowa-Sarkan Ghundai]

The inferred role of Buddhism in northern Balochistan was primarily constructed through the comparison of early historic pottery in northern Balochistan with those from Taxila and northwestern Pakistan. In the absence of radiocarbon dates, and other suitable chronometric methodologies, this comparative dating of the pottery had been an accepted method for establishing cultural chronology applied by other scholars, such as by Fairservis (1956, 1959) and Mughal (1972, p. 140), in the periodization of early historic and Buddhist sites in Balochistan. Established terminologies have been used by scholars such as by Mughal (1972) to refer to the same material culture within the context of Balochistan archaeology. For consistency, we also adhere to this terminology, while cautioning the reader that we do not necessarily ascribe to the theoretical connotations and assumptions of the earlier scholars' comparative method, wherein the terms 'stamped ware', 'rope ware' and/or 'Buddhist ware' have generally been used to designate the presence of Buddhism at archaeological sites.

Analysis and Discussions

The extent of Buddhism in Balochistan is still largely unknown and the province has effectively remained outside the discourse of Buddhism in Pakistan. This is perhaps due to lack of remarkable findings, such as sculptures or large monastic complexes, that could be associated with Buddhism, such as those of the Gandhara, Taxila and Udyāna or Swat valleys. Except for the work of Sir Aurel Stein (1929), who excavated the site of a Buddhist stupa (sans sculptures), at the site of Tor Dherai and Fairservis (1959) at Dabar Kot, in the Loralai region, none of the archaeologists working in northern Balochistan have recovered Buddhist sculptures or architecture since then. However, Mughal (1972, p. 139) believed that the early historic and Islamic periods of Balochistan have yet to be explored systematically. Konow (1929, p. 173) believed that the site of Tor Dherai was linked to the empire of the Kushans, extension to the west. The Kushana dynasty is generally regarded as the main promulgators of Buddhism during the first quarter of the 1st millennium CE.

Within the systematic transect survey of Tehsil Bori, District Loralai, we identified a total of 12 archaeological sites with early historic/Buddhist material culture. These included, the site of DSL-04, which was discovered on transect AD9-AD10 at a latitude 30°32'57.51"N and longitude 68°7'21.38" E. The site was located at 1937 metres above mean sea level (amsl) and measured about 1.80 hectares. The DSL-05 site was recorded on the transect AD1-AD2 at latitude 30°33'28.67" N and longitude 68°7'25.06" E. DSL-05 was situated at 1960 amsl and measured about a quarter (or 0.24) hectare. The DSL-06, the smallest of all the sites, was located on transect AD1-AD2 at latitude 30°33'25.92"N and longitude 68°7'34.69" E. It measured 0.08 hectare and was located 1958 amsl. The site of DSL-07 was found on transect AD3-AD4 at latitude 30°39'20.51" N and longitude 68°8'35.42" E. This site measured a little over half (or 0.55) hectare. The DSL-08 site was located on transect AD5-AD6 at latitude 30°33'8.96" N and longitude 68°7'12.55" E. It measured about 0.64 hectares and was located at the 1395 amsl (Fig. 6).

The ML-02 site was discovered on transect AD29-AD30 at latitude 30°20'26.30" N and longitude 68°39'3.35" E. ML-02 measured a little over half a hectare and was situated at 1395 amsl. The site of ML-03-04 was recorded on transect AD27-28 at latitude 30°20'48.05" N and longitude 68°39'43.05" E. The site measured about 2.24 hectares and was located at 1388 amsl. The ML-10 was recorded on transect AD21-AD22 at latitude 30°21'1.01" N and longitude 68°39'46.60" E. ML-10 measured less than half a hectare in area and was situated at 1384 amsl. The ML-12 site was found on transect AD29-AD30 and was located at latitude 30°20'44.18" N and longitude 68°38'34.24" E. It measured less than half a hectare in area and was located 1390 amsl (Fig. 7). The Shahbozai Ghundai site, at altitude 30°23'11.25" N and longitude 68°47'36.04"E, was the largest of the discovered sites at 1313 amsl and measured 40 hectares in size. The site of Barnima Ghundai, located at an altitude N and longitude E, was located at 1296 amsl and measured 0.2 hectares in area. Similarly, the site of Dowa Sarkan Ghundai was located at an altitude N and longitude E, 1335 amsl, and measured 1.28 hectares in area.

Size-wise, these sites could be classified into three categories. Small sites, covering less than one hectare in area, are the most numerous and these included 8 of the 12 newly discovered Buddhist sites (Fig. 8). Medium-sized sites, with an area ranging from 1 to 3 hectares, include three of these new localities (Fig. 9). Finally, the site of Shabozai Ghundai (with an area of 40 hectares) may be classified as 'extra large' (Fig. 10). Based upon the altitude from the mean

sea level, we could classify the sites into two groups. The first group of sites was located between 1290 and 1400 metres amsl (seven sites). The second group consisting of five sites were located at high altitude, between 1930 to 1960 metres amsl. Most of the high altitude sites, with the exception of DSL-04 site, were small-sized sites with less than 0.70 hectares in area, while medium and extra-large sized sites were found at lower altitudes (Table 2).

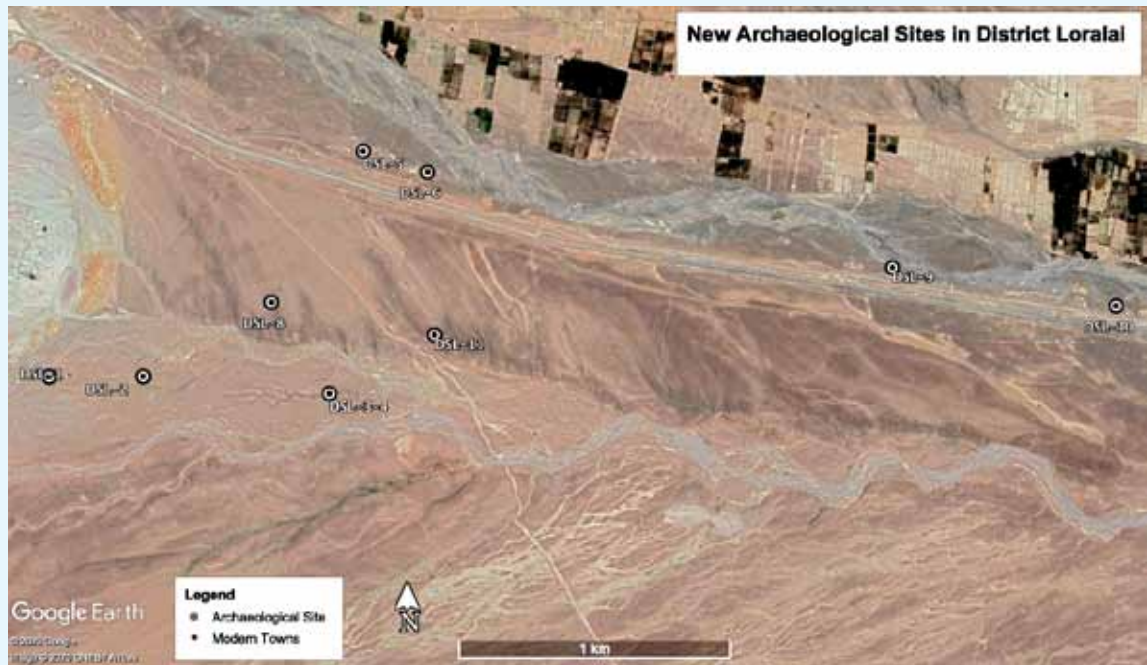


Figure 6: Location of archaeological sites from transects near Dargai Sargarh village

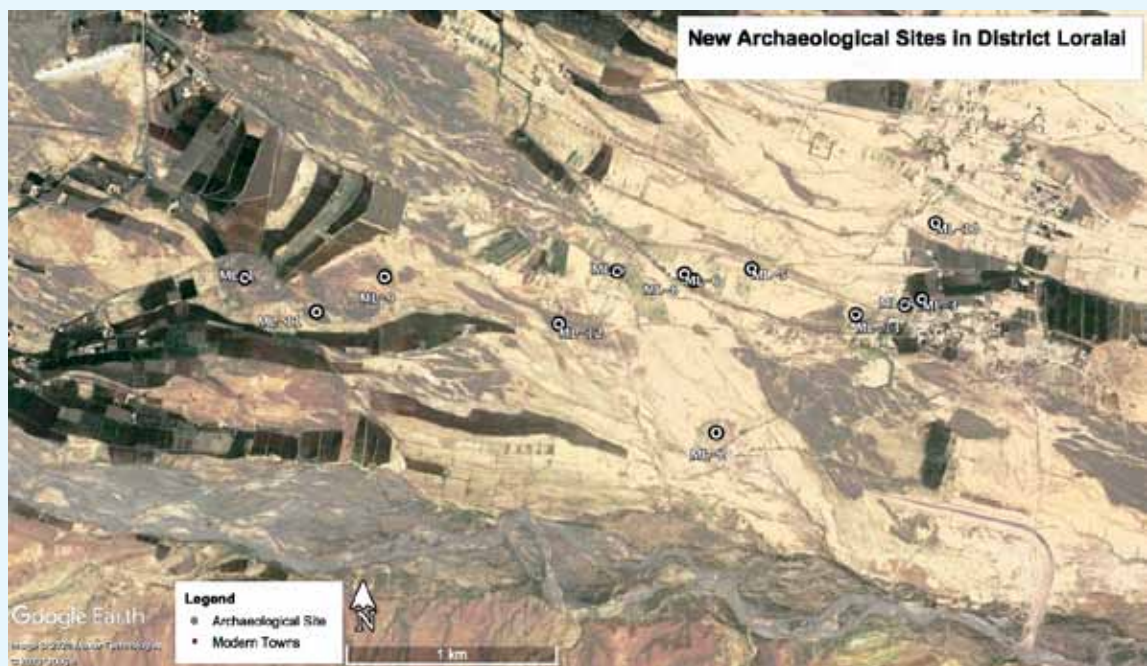


Figure 7: Location of archaeological sites from transects near Mahool Sheikhan village



Figure 8: General view of the ML-02 site



Figure 9: General view of the ML-03-04 site.

S. No.	Site Name	Transect	Latitude (N)	Longitude (E)	Elevation (in meters above Mean Sea Level)	Area (hectares)
1	DSL-04	AD9-AD10	30°32'57.51"	68° 7'21.38"	1937	1.8
2	DSL-05	AD1-AD2	30°33'28.67"	68° 7'25.06"	1960	0.24
3	DSL-06	AD1-AD2	30°33'25.92"	68° 7'34.69"	1958	0.08
4	DSL-07	AD3-AD4	30°39'20.51"	68° 8'35.42"	1949	0.55
5	DSL-08	AD5-AD6	30°33'8.96"	68° 7'12.55"	1956	0.64
6	ML-02	AD29-AD30	30°20'26.30"	68°39'3.35"	1395	0.56
7	ML-03-04	AD27-AD28	30°20'48.05"	68°39'43.05"	1388	2.24
8	ML-10	AD21-AD22	30°21'1.01"	68°39'46.60"	1384	0.4
9	ML-12	AD29-AD30	30°20'44.18"	68°38'34.24"	1390	0.44
10	Shabozai Ghundai	Village to Village	30°23'11.25"	68°47'36.04"	1313	40
11	Barnima Ghundai	Village to Village	30°24'24.05"	68°51'6.49"	1296	0.2
12	Dowa Sarkan Ghundai	Village to Village	30°24'18.83"	68°50'2.13"	1335	1.28

Table 2: The location, elevation and area of the early historic/Buddhist sites, Tehsil Bori, District Loralai



Figure 10: General view of the Shabozai Ghundai site and its ongoing conversion into agricultural fields.

S. No.	Site Name	Stamped Ware	Rope Ware
1	DSL-04	Y	
2	DSL-05	Y	
3	DSL-06		Y
4	DSL-07	Y	
5	DSL-08		Y
6	ML-02		Y
7	ML-03-04		Y
8	ML-10		Y
9	ML-12		Y
10	Shabozai Ghundai	Y	Y
11	Barnima Ghundai		Y
12	Dowa Sarkan Ghundai		Y

Table 3: The presence of stamped and rope wares at early historic/Buddhist sites, Tehsil Bori, District Loralai

Rope ware was recorded from eight or two-third of the sites, including the sites of DSL-06, DSL-08, ML-02, ML-02-03, ML-10, ML-12, Shabozai

Ghundai, Barnima Ghundai and Dowa Sarkan Dheri. With the exception of DSL-06 and DSL-08 sites, none of the sites at higher altitude (1930 to 1960 metres amsl) contained the rope ware. All the sites within the lower altitudinal category (1290 to 1400 metres amsl) had rope ware (Table 3; Fig. 11).

With the exception of DSL-08 site, the early historic/Buddhist sites at lower altitude also dated typologically between the 3rd century BCE to 1st century CE (Table 4). The early historic/Buddhist period at DSL-08 started from 3rd century BCE and continued till 8th century CE. Similarly, within the higher altitudinal category, the early historic/Buddhist periods of ML-03-04 and Barnima Ghundai sites were dated between the 3rd century BCE to 8th century CE, while the rest of the sites were earlier, from the 3rd century BCE to 1st century CE. Thus, it may be argued that the rope ware dated consistently between the 3rd century BCE to 1st century CE. Similarly, the stamped ware within the both the altitudinal categories could be dated from 3rd century BCE to 1st century CE and the same was absent from sites with early historic/Buddhist period dated to 3rd century BCE to 8th century CE.

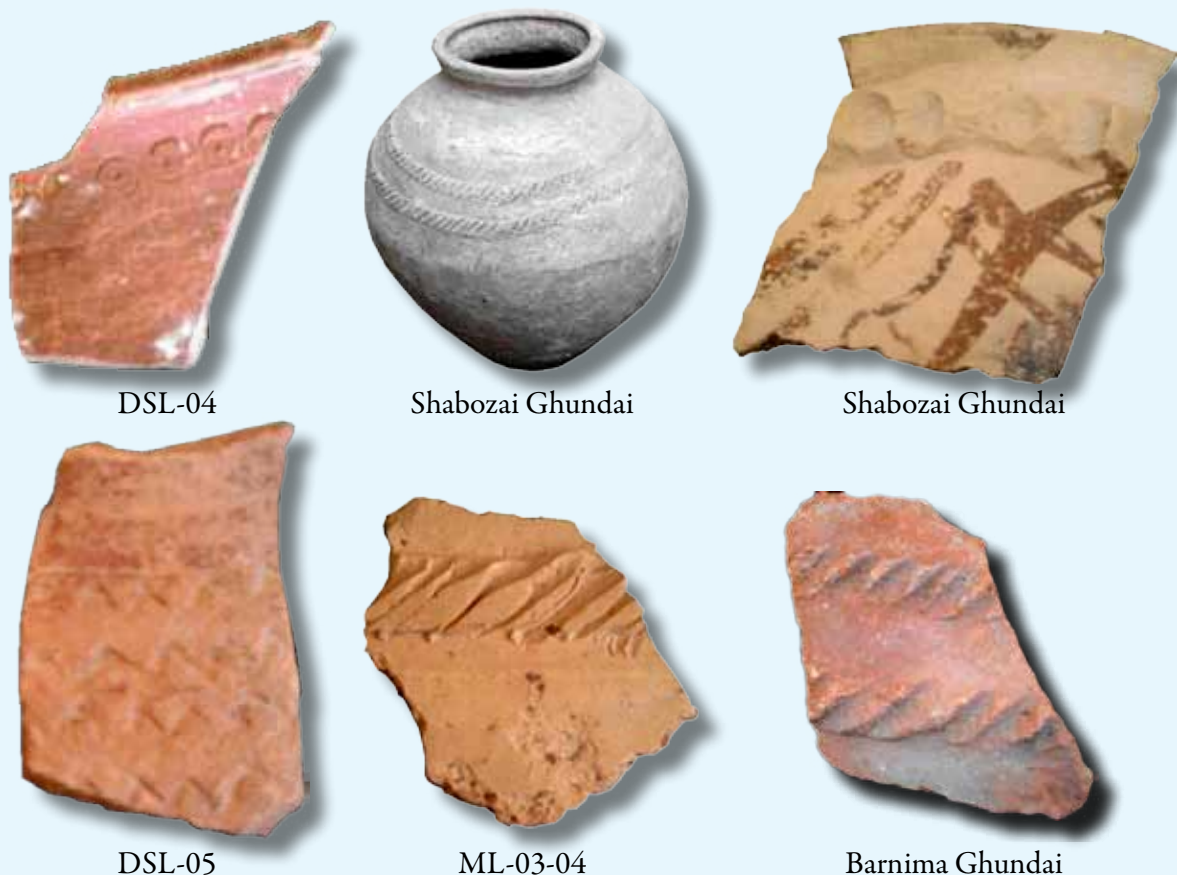


Figure 11: Selected early historic/Buddhist pottery forms from Tehsil Bori survey.

S. No.	Site Name	Early Historic Comparative Site	Chronological Period	Date Range
1	DSL-04	Periano Ghundai and Dabar Kot	DK - Group 4	3rd century BCE to 1st century CE
2	DSL-05	Dabar Kot, Mughal Ghundai and Rana Ghundai	RG-V and QV-D	3rd century BCE to 1st century CE
3	DSL-06	Kaudani and Rana Ghundai	RG-V	3rd century BCE to 1st century CE
4	DSL-07	Mughal Kala, Rana Ghundai and Tulamba	RG-V and T. II	3rd century BCE to 1st century CE
5	DSL-08	K2 and Q30	QV - D & C	3rd century BCE to 8th century CE
6	ML-02	P4	RG-V	3rd century BCE to 1st century CE
7	ML-03-04	Q32	QV - D & C	3rd century BCE to 8th century CE
8	ML-10	B1	QV - D	3rd century BCE to 1st century CE
9	ML-12	Kaudani and Rana Ghundai	RG-V & QV - D	3rd century BCE to 1st century CE
10	Shabozai Ghundai	Dabar Kot and Rana Ghundai	RG-V	3rd century BCE to 1st century CE
11	Barnima Ghundai	Kaudani and Q13	RG-V & QV - D	3rd century BCE to 8th century CE
12	Dowa Sarkan Ghundai	Rana Ghundai, Q32, Mughal Kala and K2	RG-V & QV - D	3rd century BCE to 1st century CE

B: Bolan; K: Kalat; P: Pishin; Q: Quetta; DK: Dabar Kot; Rana Ghundai; T: Tulamba; QV: Quetta Valley;

Table 4: The chronological contexts of the early historic/Buddhist sites, Tehsil Bori, District Loralai

Three of the five sites at higher altitude were relatively later habitations and could be dated from 3rd century BCE to 8th century CE (Table 4). The rest of the sites within both the altitudinal categories had a long life span, starting from 5th-4th millennium BCE to 8th century CE (Table 5).

At least 15 inscriptions, dated from the 1st to 9th centuries CE, from 14 archaeological sites have been documented in Kharoshthi, Brahmi, Sarada, Nagari, Sogdian and Arabic scripts from Loralai and surrounding regions (Table 6). The majority of these inscriptions were in Kharoshthi script and were dated from 1st to 2nd century CE, signifying a strong religious and political links with the Gandhara region during the first centuries of the Common Era. Most of these inscriptions were dedicatory in nature and celebrated meritorious deeds, such as the construction of stupa, wells, or water reservoirs. The importance of construction of wells and water

reservoirs for both humans and animals may have been a mark of high merit, especially in the desert and semi-desert areas of Loralai and surrounding regions.

The study of silver and copper coins from the Loralai and adjoining regions led Pankaj Tandon (2012) to postulate the presence of a Buddhist/Hindu kingdom in most of Balochistan province, called Pāradān. He reconstructed the political history of the eleven Pārata kings of the Pāradān (Tandon, 2012, p. 34). He believed that the first king of this dynasty was called Yolamira, son of Bagareva, who ruled from circa 125 to 150 CE (Tandon, 2012, p. 34). He was followed by his sons Bagamira, circa 150 CE, Arjuna, circa 150 – 165 CE and Hvaramira, circa 165 – 175 CE (Tandon, 2012, p. 34). Hvaramir was followed by his sons Mirahvara (circa 175 – 185 CE) and Miratakhma (circa 185 – 200 CE) (Tandon, 2012, p. 34). Miratakhma was followed by Kozana

S. No.	Site Name	Multi-Period	Associated Sites and Chronological Phases	Possible Date Range
1	DSL-04	Y	Sur Jangle II and III, Mehrgarh III, Rana Ghundai III, Kili Gul Muhammad IV, Kot Diji, Mundigak - I and Damb Sadat II and III	Mid-5th millennium BCE to 1st century CE
2	DSL-05	Y	Harappan	Mid-3rd millennium BCE to 1st century CE
3	DSL-06	N	Kaudani and Rana Ghundai V	3rd century BCE to 1st century CE
4	DSL-07	Y	Early Historic, Historic	3rd century BCE to 3rd century CE
5	DSL-08	Y	Early Historic, Historic	3rd century BCE to 8th century CE
6	ML-02	Y	Mehrgarh III to VII, Harappan, Ghalegai III	Mid-5th millennium BCE to 1st century CE
7	ML-03-04	Y	Sur Jangle III, Early Historic, Historic	Mid-5th millennium BCE to 8th century CE
8	ML-10	Y	Harappan and Early Historic	Mid-3rd millennium BCE to 1st century CE
9	ML-12	Y	Rana Ghundai Ia and Quetta Valley D	Mid-5th millennium BCE to 1st century CE
10	Shabozai Ghundai	Y	Rana Ghundai I to IV, Sur Jangle I and II, Kot Diji, Damb Sadat III, Harappan, and Quetta F to D,	Mid-5th millennium BCE to 1st century CE
11	Barnima Ghundai	Y	Lewan, Kot Diji, Harappan, Rana Ghundai III-IV, Quetta E and D, and Historic	End of 4th millennium BCE to 8th century CE
12	Dowa Sarkan Ghundai	Y	Rana Ghundai III to V and Quetta Valley F to E.	Mid-4th millennium BCE to 1st century CE

Table 5: The relative chronological extent of multi-period sites at Tehsil Bori, District Loralai

S. No.	Site	Region	Script	Possible Date	Evidence	Reference
1	Tor Dherai	Loralai	Kharoshthi	200 CE	45 potsherds	(Kakar et al., 2017, p. 47; Konow, 1929, pp. 73-75; 1929, pp. 173-176; Stein, 1929)
2	Tor Dherai	Loralai	Gupta Brahmi	4 - 6 th century CE	5 potsherds	(Encyclopaedia Britannica, 2020; Kakar et al, 2017, p. 50; Konow, 1929, pp. 73-75; 1929, pp. 173-176)
3	Mir Ali	North Waziristan	Sarada	840/843/861 CE	Stone	(Khaw, 2016, p. 161; Nasim Khan & Azeem, 1999)
4	Mir Ali - Idak and Spinwarm	North Waziristan	Kufic Arabic, Sarada or Nagari or Sogdian	857 CE	Stone	(Dani, Humbach, & Gobl, 1964, p. 125; Khaw, 2016, p. 161)
5	Mir Ali - Khazana	North Waziristan	Sarada or Nagari or Sogdian	862 CE	Stone	(Dani, Humbach, & Gobl, 1964, p. 126; Khaw, 2016, p. 162)
6	Mir Ali - Sher-talao or Shertulla	North Waziristan	Arabic and Sogdian	865 CE	Stone	(Dani, Humbach, & Gobl, 1964, p. 126; Khaw, 2016, p. 161)
7	Spinwam	North Waziristan	Kharoshthi		Stone	(Nasim Khan & Azeem, 1999; Solomon, 1981)
8	Shertala - Idak ~ Spinwarm Road	North Waziristan	Kharoshthi		Stone	(Dani, 1978; Nasim Khan, 2001)
9	Spina	South Waziristan	Brahmi	305 or 311 CE	Stone	(Nasim Khan, 2001)
10	Rani Dab, Sultanai	Orakzai	Kharoshthi	1 st - 2 nd century CE	Copper Plate	(Nasim Khan, 2002)
11	Kurram Casket Inscription	Kurram	Kharoshthi	2 nd century CE	Copper Stupa	(Konow, 1929, pp. 152-153)
12	Chaki Wardak	Afghanistan	Kharoshthi	178 CE	Copper Urn	(Konow, 1929)
13	Sui Vihar, Punjnad	Bahawalpur	Kharoshthi	June 129 CE	Copper Plate	(Kakar et al., 2017, p. 47; Konow, 1929)
14	Mohenjodaro	Larkhana/ Benazirabad	Kharoshthi		3 Glazed potsherds	(Kakar et al., 2017, p. 47; Konow, 1929, p. 173)
15	Andarbes	Zhob - Pishin	Kharoshthi Graffiti		Rock Carving	(Stein, 1929, p. 79)

Table 6: Distribution of inscriptions of 1st millennium CE in and around the Loralai region

son of Bagavhama (circa 200 to 220 CE) (Tandon, 2012, p. 34). Kozana was succeeded by Bhimarjuna son of Yolatakhma in circa 220 to 230 CE (Tandon, 2012, p. 34). Bhimarjuna was followed by Koziya son of Kozana and he ruled from circa 230 to 265 CE (Tandon, 2012, p. 34). Koziya was succeeded by Datarvharna son of Datayola I and he ruled from circa 265 to 285 CE (Tandon, 2012, p. 34). Datayola II son of Datarvharna (circa 285 to 300 CE) was the last king of this dynasty (Tandon, 2012, p. 34).

The salient features of the Pāratarajas coins were that “[a]lmost all the coins carry a bust on the obverse and a swastika surrounded by a circular legend on the reverse. The language of virtually all the coin-legends is Prakrit, and the legends themselves are written sometimes in Brahmi letters and sometimes in Kharoshthi, recalling the similar pattern of the potsherds discovered in Loralai by Stein. Finally, the coins are found in silver and copper, but there is almost no overlap between them (Tandon, 2012, p. 33)”.

A local resident of Shabozai village, residing near the Shabozai Ghundai site, showed the survey team a silver coin of the Pāratarajas from the site. The owner of the coin did not permit its photography, but later on sent a blurred image of the coin to the survey team that could not be reproduced for publication. The coin has a bust of the king on obverse with a swastika on the reverse side surrounded by text. Visual comparison of the coin with the list of the coins of the Pāratarajas, suggested that it was probably the coin of king Hvaramira son of Yolamira, who ruled from 165 to 175 CE.

Based upon the genealogy of the Shahi title by Sten Konow (1929 c, p. 175), Tandon (2012, p. 34), believed that Yolamira issued his first coins around or after 127 CE during the reign of Kanishka. However, Stein (1929, pp. 96-97) suggested that Yola Mira was a governor of the Kushan and that he belonged to the Khotan region. The early coins of the Pāratarajas showed close similarity with the Parthian and Kushan coinage, while their last coins were overstruck by Sasanian kings (Tandon 2012, pp. 34-37). The Pāratarajas derived their power from the control of the Bolan Pass and, hence, the overland



Figure 12: Map of the possible geographical limits of the Pārādān kingdom, Balochistan (adapted from Tandon 2012).

trade between India and Rome during the 2nd and 3rd centuries CE (Tandon, 2012, p. 37). Quoting Mukherjee (1972, pp. 63 - 65), Tandon (2012, p. 43) argued that Pārādā was the old name of the metal mercury, a name unknown till the 2nd century CE in India and that the Pārādān kingdom controlled and dealt in the trade of mercury.

Tandon (2012, p. 43) suggested that the Pārādān kingdom was centred around the Loralai region but also included most of the ancient polities of Gedrosia (modern Makran (Stein, 1931)) and southern Arachosia (the Kandahar, Helmand and adjoining regions). Konow (1929, p. 175) believed that Loralai was the eastern dependency of the Kandahar province during the later historic times. The extended Pārādān kingdom included the regions of Panjgur (in the south) to touching Indus River and Zhob (in the north) to Kandhar (in the west) and Helmand (in the southwest) regions (Tandon, 2012, pp. 43-46; Fig. 12).

The archaeological and numismatic evidence suggests that the Loralai region, including the modern districts of Qilla Saifullah, Loralai, Duki, Sibi, Harnai, Mastung, Bolan, Kohlu, Barakan and Musakhel constituted the core of the early historic Pāradān kingdom. However, the extended Pāradān kingdom at its peak, possibly included the whole of the northern, central and southern Balochistan, parts of the Iranian region of Seistan-Balochistan, and most of the Afghanistan's provinces of Paktika, Ghazni, Zabul, Kandahar, Helmand and Nimroz. In the north, the Pāradān kingdom probably extended to include districts of Dera Ismail Khan, Tank, South and North Waziristan, and Kurram of Khyber Pakhtunkhwa province, districts Dera Ghazi Khan, Rajanpur and Rahim Yar Khan of Punjab province and bordering region of Sind province.

The choice of landscapes within the Kot Dijian and Harappan periods in the Loralai region was likely commanded by environment, resources and proximity to trade and communication routes (Zahir & Khan, 2018, p. 19; 2020, p. 367). The same landscape choices continued across the early historic/Buddhist period, though not in perfect agreement, with those of the Kot Dijian and Harappan periods. Early historic/Buddhist sites in the survey region were influenced by their locations near the water resources, trade and access routes, mountain passes and agricultural lands. These sites were primarily concentrated within two mountainous valley-like settings at different altitudinal heights. Most of the newly discovered early historic/Buddhist were located in a comparatively low altitudinal area, in areas with relatively large agricultural tracts. These sites seem to have been linked with semi-perennial streams. Most such sites from this period, with the exception of two, seem to have been small villages of about or just over half a hectare. The Shabozai Ghundai site seems to have been a large urban centre, though the extent of the presence of early historic/Buddhist occupation at the site is unknown.

The concentration of the early historic/Buddhist sites within the relatively low valley settings suggests that the Buddhist establishments were more closely linked with agricultural communities and trading communities. Following the earlier Kot Dijian and Harappan settlement patterns, the early historic/

Buddhist sites were linked to trade routes (Zahir & Khan, 2018, p. 20). These trade routes connected the study region with Afghanistan, Iran and onwards, and with central and western Asia through Quetta, Khyber Pakhtunkhwa and Punjab through Dera Ismail Khan, Zhob and Qila Saifullah, Sindh and Punjab onwards with South Asia through Sakhi Sarwar pass and Sind through Loralai and Duki regions (Zahir & Khan, 2018, p. 20). From all these regions, unifying threads of material culture, especially stamped and rope wares, and contemporary inscriptions - have been recovered, suggesting a strong political and religious association between the Loralai, as a core region, and surrounding regions during the early historic/Buddhist period. The new findings from transect and village-to-village surveys support the hypothesized existence of a political state during the early historic/Buddhist period corresponding to the Pāradān kingdom, as suggested from coinage from the region (Tandon, 2012). The early line of the Pāratarajas were likely Buddhist while the later, from Arjuna onwards (circa 150 – 165 CE), seemed to have followed Hinduism or Mithraism.

The swastika was probably the emblem of the Pāradān kingdom and it was represented on the reverse of the coins of all the eleven Pāratarajas (Tandon, 2012, pp. 33, 37). The presence of swastika was reported engraved on the rocks at the foot of the Buddhist stupa site of Tor Dherai by Stein (1929). The inscribed potsherd referred to a Buddhist stupa and monastic establishment, with a water tank, by Yola Mira Shahi, the founder of the Pāradān kingdom (Stein, 1929, Konow, 1929; Tandon, 2012). One of the reported architectural decorative elements from Tor Dherai stupa excavations also had a carved swastika, moving to the right (Stein, 1929, Fig. 28). Swastika symbols, Kharoshthi and Nagari inscriptions, and possibly horsemen, have been reported engraved on the rocks near the Tor Dherai site likely belong to the Pāradān kingdom and possibly date to the time of its first ruler, the Yola Mira Shahi. The swastika symbol was religiously significant for both the Buddhists and Hindu religion, fitting well within the religious beliefs of the Pāratarajas. This acceptance within both Buddhist and Hindu pantheon of the swastika symbol might have contributed to its continuity as a state symbol within the Pāradān kingdom.

Our cursory analysis of the presence of stamped and rope wares in the archaeological literature revealed 46 early historic/Buddhist sites across the broader region of Balochistan (Appendix 1). More than half of these (n= 27) early historic/Buddhist sites come from within the Loralai region, confirming its position as the core area of the early historic/Buddhist period within Balochistan and the surrounding area. Similar review of the archaeological literature revealed a further 60 sites outside Balochistan (Appendix 2). These, along with the newly discovered 12 early historic/Buddhist sites, bring the total to 118 sites in Balochistan and the adjacent regions with ceramics associated with the early historic/Buddhist period. Given this wide distribution, it may be fair to hypothesize that stamped and rope wares represent a diagnostic early historic/Buddhist pottery tradition, spreading from the ancient Udyâna region in the north to Seistan in the south and Rang Mahal in the east. The lack of recorded coordinates for most of the recorded early historic/Buddhist sites within and outside Balochistan have thus far prevented us from mapping the distribution of these localities, but focused investigations in the future may help visualize the spread of stamped and rope wares and early historic/Buddhist material culture and assess their relationship to the Pāradān kingdom.

If the spread of the stamped and rope wares shared a relationship with the political or economic boundaries of the early historic kingdom of Pāradān in Balochistan, this pattern also appears to reflect a strong relationship between the Pāradān state and Kushan empire from the ancient region of Gandhara. If strong religious and political relationships existed between the states of Pāradān and the Kushan empire, Pāradān state may have served as a vassal kingdom, at least in its formative years. Future research, involving investigation of the political and religious relationships between the two – perhaps through mapping of the coins of the Pāradān kingdom and early historic/Buddhist sites in Balochistan and the surrounding regions – may provide us clues to understanding the nature and extent of social and economic links between these two polities in the past.

Investigation of the spread of Sarvastivada Buddhism in Balochistan and surrounding regions may also clarify the ancient relationship between Buddhist Balochistan and Gandhara, Taxila and Udyâna regions. In fact, architectural reliefs from Tor Dherai stupa were similar to the architectural decorations found in Buddhist establishments in the Gandhara, Taxila and Udyâna regions (Stein, 1929, Figs. 25-27). Most of the decorative elements at Tor Dherai are floral and geometrical, dominated by the motif of acanthus leaves (either individually, or as part of the Corinthian pilasters). In fact, the Corinthian pilasters themselves are largely similar to those found at monuments in the Gandhara, Taxila and Udyâna regions. However, the Tor Dherai pilasters also differs from pilasters in the Gandhara, Taxila and Udyâna regions in some ways, as these tapered upward.

Two broken headless torso of terracotta figurines from Dabar Kot, depicted with prominent breasts, of Buddhist derivation are broadly similar to the terracotta figurines from Taxila valley (Fairervis, 1959, p. 353, pl. 33; Marshall 1951, pl. 132-133). These figurines, along with a Buddhist relief described by Fairervis (1959, p. 311) have the potential to be among the most important archaeological discoveries known from ancient Balochistan. However, Fairervis neither published the photographs or drawings of the Buddhist relief, nor did he discuss or identify these findings in great detail. Future investigation of these, and other extant specimens of Buddhist art, could shed light on the Buddhist art of Balochistan and its relationship with the regional styles of Buddhist art in South Asia.

It is crucial to understand that the present survey was carried out in a limited area of Tehsil Bori, District Loralai and that the results- though very exciting and encouraging- may or may not be a factual reflection of the composite archaeological and the early historic/Buddhist landscape of the Loralai region and Balochistan province. However, our results suggest that with the application of modern tools, as well as the use of analytical, theoretical and interpretative survey strategies, brings us the potential to exponentially increase our understanding of the archaeology of Balochistan. The knowledge of the early historic/Buddhist period sites in Balochistan

can certainly be enhanced with technologically and theoretically improved survey methodologies. Additionally, further investigation and mapping of the find spots of coins and archaeological sites with stamped and rope wares in Balochistan and the surrounding regions could help establish clear political and material culture boundaries of the Pāradān kingdom during the 2nd and 3rd centuries CE and clarify its relationship with the Kushan empire to the north and Sasanian empire to the south

Conclusions

The Buddhist pantheon is unknown in the archaeology and history of Balochistan province, Pakistan. There is practically no information on the introduction, development and decline of Buddhism in Balochistan, although it enjoyed close linkages with the predominant Buddhist regions of Gandhara, Taxila and Udyāna regions, Sind province, and Afghanistan and Central Asia during the mid-1st millennium BCE to 1st millennium CE. Early excavations of Buddhist architectural and material culture, such as at the sites of Tor Dherai and Dabar Kot, in the Loralai region pointed to the possibility of a thriving Buddhist culture and polity within Balochistan. The presence of Buddhist material culture, particularly the diagnostic Buddhist stamped and rope wares, suggests the possible spread of Buddhism in Balochistan and its relationship with the core areas of Buddhism such as Gandhara, Taxila and Udyāna regions in northwestern South Asia. However, these tantalizing suggestions have not been further investigated in the century following their initial discovery.

Our systematic transect survey at Tehsil Bori, District Loralai, led to the discovery of 26 new archaeological sites, including 12 early historic/Buddhist sites. The finding of possible 12 early historic/Buddhist sites within such a limited area suggests to a vibrant presence of the Buddhists in Loralai region in antiquity. Further investigation of the archaeological literature revealed 46 archaeological sites with similar material culture/designation in the Balochistan province. Consideration of the early historic literature revealed the presence of another 46 similar sites in the surrounding regions and 14

sites in Sind province. Finally, 14 sites in Balochistan and surrounding regions were identified with inscriptions from the 1st millennium CE, primarily in the Kharoshthi script. Viewed together, these sites reveal a previously undocumented spread of early historic/Buddhist phenomenon in Balochistan and surrounding regions.

The spread of these sites corresponds with the possible geographical range of the early historic kingdom of Pāradān, identified recently through discoveries of a specific type of 2nd – 3rd century CE coins from Balochistan. The kingdom of Pāradān probably incorporated most of Balochistan and its surrounding regions, with Loralai region as its core. The kings of Pāradān seemed to have been Buddhist initially, and enjoyed close cultural, religious and socio-political relationships with the Kushan empire, centred at Gandhara. The kings of Pāradān had control over access and trade routes connecting South Asia and the Roman world through both territorial power and control over the trade of mercury – providing them with power, prestige, and perhaps even independence from the Kushan empire in the 2nd – 3rd century CE. Technologically and theoretically informed multi-disciplinary investigations in northern and central Balochistan and adjoining regions in future may provide us critical information on Buddhism, the political extent of the kingdom of Pāradān, and its relationships with the contemporary empires and cultural and religious centres.

References

- Ali, I. (2003). Early Settlements, Irrigation and Trade Routes in Peshawar Plain. *Frontier Archaeology*, 1, 1 - 289.
- Ali, I., & Jan, Z. (2005). Archaeological Explorations in the Gomal Valley, Pakistan, 2003. *Frontier Archaeology*, 3, 1 - 54.
- Ali, I., Khalil, M. R., Young, R., & Zahir, M. (2010). A Survey of Lower Dir, Khyber Pakhtunkhwa (former North West Frontier Province), Pakistan in 2005. *Pakistan Heritage*, 2, 137 - 160.
- Ali, I., Khalil, M. R., Young, R., & Zahir, M. (2009). A survey of Lower Dir, North West Frontier Province, Pakistan in 2005. *Man and Environment*, 34 (1), 30 - 37.

- Ali, I., Shah, I., Samad, A., Zahir, M., & Young, R. (2016). Preliminary Results of Archaeological Survey in Chitral, Khyber Pakhtunkhwa, Pakistan. In V. Widron, U. Franke, & P. Latschenberger (Eds.), *South Asian archaeology and art: Papers from the 20th conference of the European Association for South Archaeology and Art held in Vienna from 4th to 9th of July 2010. South Asian Archaeology and Art: Contextualizing Material Culture in South and Central Asia in Pre-Modern Times* (Vol. 2, pp. 177 – 186). Turnhout, Belgium: Brepols.
- Baloch, A. S. (2011). *District Development Profile 2011: Loralai*. Quetta, Balochistan, Pakistan: Planning and Development Department, Government of Balochistan; UNICEF.
- Bukhari, M. F. (2010). Development of Buddhism and its cultural influence on the Religious Beliefs and Practices of Successive Periods in Sindh. Karachi, Sind, Pakistan: University of Karachi, Karachi.
- Burke, H., & Smith, C. (2004). *The Archaeologist's Field Handbook*. Crows Nest, Australia: Allen and Unwin.
- Dani, A. H. (1978). A Kushana Kharoshthi Inscription from North Waziristan (Pakistan) dated Year 39. In S. Paranavitana, L. Prematilaka, K. Intirapālā, & L. J. Lohuizen-De (Eds.), *Senarat Paranavitana commemoration volume (Studies in South Asian Culture)* (pp. 48 - 50). Leiden, Netherland: E. J. Brill.
- Dani, A. H. (1965). Shaikhani Dheri Excavations (1963 - 1964 Seasons). *Ancient Pakistan*, 2, 17 - 120.
- Dani, A. H. (1965-66). Walter A. Fairservis - Archaeological Surveys in the Zhob and Loralai Districts. *Ancient Pakistan*, 228.
- Dani, A. H., Humbach, H., & Gobl, R. (1964). Tochi Valley Inscriptions in the Peshawar Museum. *Ancient Pakistan*, 1, 125 - 135.
- Dibyopama, A., & Shinde, V. (2016). Rang Mahal Sites of Hanumangarh district Western, Rajasthan India. *Ancient Punjab*, 1 - 65.
- Encyclopaedia Britannica, T. E. (2020). *Chinese Architecture*. Retrieved August 14, 2020, from Glueideas.com: <http://glueideas.com/Encyclopedia-Britannica-Volume-5-Part-2-Cast-Iron-Cole/Chinese-Architecture.html>
- Fairservis, W. A. (1959). Archaeological Surveys in the Zhob and District Loralai, West Pakistan. *Anthropological papers of the American Museum of Natural History*, 47 (2), 277 - 447.
- Fairservis, W. A. (1956). Excavation in the Quetta Valley, West Pakistan. *Anthropological papers of the American Museum of Natural History*, 45 (2), 169 - 402.
- Halim, M. A. (1972). Excavations at Sarai Khola, Part II. *Pakistan Archaeology*, 8, 1 - 112.
- Jawad, A. (1996). The Archaeological Exploration in Bajaur Agency: Pottery Description of Bajaur Agency. In Saeed-ur-Rehman (Ed.), *Archaeological Reconnaissance in Gandhara* (pp. 171 - 176). Karachi, Sind, Pakistan: The Department of Archaeology & Museums, Ministry of Culture and Sports, Government of Pakistan.
- Jawad, A. (1996). The Archaeological Exploration in District Nowshera: Pottery Description of District Nowshera. In Saeed-ur-Rehman (Ed.), *Archaeological Reconnaissance in Gandhara* (pp. 217 - 224). Karachi, Sind, Pakistan: Department of Archaeology & Museums, Ministry of Culture and Tourism, Government of Pakistan.
- Kakar, F. D., Arshadullah, Lone, A. G., & Mehmood-ul-Hassan. (2017). The Buddhist Stupa Remains and Inscribed Ceramics from Tor Dherai, District Duki, Balochistan (Revisited). *Journal of Asian Civilizations*, 40 (2), 47 - 56.
- Khan, I. (2017). Exploring the settlement archaeology of the Hindu Shahi dynasty (c. 822 CE to c. 1026 CE) in north-western Pakistan. Leicester, United Kingdom: University of Leicester, UK.
- Khan, M. (2002). A Brief Note on Archaeological Site Panj Pai in Baluchistan. *Ancient Pakistan*, 15, 145 - 151.
- Khaw, N. B. (2016). Study and Analysis of Brahmi and Sarada inscriptions from Gandhara: Its Impact on Religious, Cultural and Historical Landscape of the Region. Peshawar, Khyber

Pakhtunkhwa, Pakistan: University of Peshawar.

Konow, S. (1929). Appendix: Note on the Tor Dherai Inscriptions. In A. Stein, *An Archaeological Tour in Waziristan and Northern Baluchistan (Memoirs of the Archaeological Survey of India)* (Vol. 37, pp. 93 - 95). Calcutta, India: Government of India Central Publication Branch.

Konow, S. (1929). Kurram Casket Inscription of the Year 20. In S. Konow (Ed.), *Kharoshthi Inscriptions with the Exception of Those of Asoka (Corpus Inscriptionum Indicarum)* (Vols. 2 - Part 1, pp. 152 - 155). Calcutta, India: Government of India Central Publication Branch.

Konow, S. (1929). Mohenjodaro Fragments. In S. Konow (Ed.), *Kharoshthi Inscriptions with the Exception of Those of Asoka (Corpus Inscriptionum Indicarum)* (Vols. 2, Part 1, p. 173). Calcutta, India: Government of India Central Publication Branch.

Konow, S. (1929). Tor Dherai Inscribed Potsherds. In S. Konow (Ed.), *Kharoshthi Inscriptions with the Exception of Those of Asoka (Corpus Inscriptionum Indicarum)* (Vols. 2 - Part 1, pp. 173 - 176). Calcutta, India: Government of India Central Publication Branch.

Konow, S. (1929). Wardak Vase Inscription of the Year 52. In S. Konow (Ed.), *Kharoshthi Inscriptions with the Exception of Those of Asoka (Corpus Inscriptionum Indicarum)* (Vols. 2 - Part 1, pp. 165 - 170). Calcutta, India.

Marshall, J. H., & Vogel, J. P. (1904). Excavations at Charsadda in the Frontier Province. *Archaeological Survey of India: Annual Report 1902-03*, pp. 141-184.

Marshall, J. (1951). *Taxila (An Illustrated Account of Archaeological Excavations carried out at Taxila Under the Order of the Government of India Between the Years 1913 and 1934)* (1975 ed., Vol. 1 (Structural Remains)). Varanasi, India: Motilal Banarsidass.

Mughal, M. R. (1967). Excavations at Tulamba, West Pakistan. *Pakistan Archaeology*, 4, 12 - 152.

Mughal, M. R. (1972). Explorations in Northern Baluchistan. *Pakistan Archaeology*, 8, 137 - 158.

Mukherjee, B. N. (1972). *The Pāradas: A Study in their Coinage and History*. Calcutta, India: A. Mukherjee & Co.

Nasim Khan, M. (2001). Brahmi Inscription of the 'Year 78' From Spina, South-Waziristan, Pakistan. *Indo Koko Kenkyu*, 22, 89 - 93.

Nasim Khan, M. (2002). Kharoshthi Inscribed Copper Plates from Rani Dab at Orakzai Agency in the Northwest Frontier Province of Pakistan. *Ancient Pakistan*, 15, 153 - 154.

Nasim Khan, M., & Azeem, A. (1999). Sarada Inscription from Mir Ali - North Waziristan: A Preliminary Report. *Ancient Pakistan*, 13, 35 - 39.

Noetling, F. (1898a). Hr. Fritz Noetling berichtet aus Calcutta, 31. März, an den Vorsitzenden über eine bevorstehende. In R. Virchow (Ed.), *Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte*. (pp. 250 - 251). Berlin, Germany: Verlag von A. Asher & Co.

Noetling, F. (1898b). Hr. Fritz Noetling meldet in einem Briefe an den Vorsitzenden vom 27. Juli aus Fort Sandeman in Baluchistan Folgendes. In R. Virchow (Ed.), *Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte*. (pp. 461 - 471). Berlin, Germany: Verlag von A. Asher & Co.

Pakistan Bureau of Statistics. (2020, September 6). *Loralai District at a Glance*. Retrieved September 28, 2020, from Pakistan Bureau of Statistics: <http://www.pbs.gov.pk/sites/default/files//tables/District%20at%20a%20glance%20Loralai.pdf>

Qamar, M. S. (1986). Rock Carvings and Inscriptions from Tor-Dera District Loralai. *Pakistan Archaeology*, 10 - 22, 168 - 178.

Salomon, R. (1981). The Spinwam (North Waziristan) Kharoshthi Inscription. *Studien zur Indologie und Iranistik*, 7, 11 - 20

Samad, A., Zahir, M., Newson, P., Hamilton, D., Ali, I., Shah, I., et al. (2012). Archaeology in Chitral, Khyber Pakhtunkhwa,

Pakistan: Placing New Results in Context. *Pakistan Heritage* , 4, 21 - 46.

Stein, A. (1931). *An Archaeological Tour in Gedrosia* (Vols. *Memoris of the Archaeological Survey of India*, 43). Nes Delhi, India: Director General, Archaeological Survey of India.

Stein, A. (1930). *An Archaeological Tour in Upper Swat and Adjacent Hill Tracts (Memoirs of the Archaeological Survey of India)* (Vol. 42). Calcutta, India: Government of India Central Publication Branch.

Stein, A. (1929). *An Archaeological Tour in Waziristan and Northern Baluchistan* (Vols. *Memoris of the Archaeological Survey of India*, 37). New Delhi, India: Diretor General, Archaeological Survey of India.

Tandon, P. (2012). The Location and Kings of Pāradān. *Studia Iranica* , 41, 25 - 56.

Wheeler, M. (1962). *Charsadda: A Metropolis of the North-West Frontier (Being a Report on the Excavations of 1958)*. Oxford, United Kingdom: The Government of Pakistan, British Academy and Oxford University Press.

Yattoo, M. A. (2012). *Characterising Material Culture to Determine Settlement Patterns in North West Kashmir*. Leicester, United Kingdom: University of Leicester.

Zahir, M., & Khan, M. A. (2018). The Quest for Harappans in Northern Balochistan, Pakistan: Initial Results and Understandings of the First Systematic Transect Survey in Tehsil Bori, District Loralai. *Ancient Pakistan* , 29, 1 - 22.

Zahir, M., & Khan, M. A. (2020). Systematic Exploration of Kot Dijian Sites in District Loralai, Northern Balochistan, Pakistan. In P. Shirvalker (Ed.), *Culture, Tradition and Continuity: Disquisitions in Honour of Prof. Vasant Shinde* (In press ed., pp. 345 - 362, 561 - 466). Pune, India: Deccan College, Pune.

Appendix 1: Sites with Buddhist Material Culture in Balochistan


S. No	Site	Region	Stamped Ware	Rope Ware	Reference
1	L8	Loralai		Y	(Fairservis, 1956, p. 328)
2	L13	Loralai		Y	(Fairservis, 1956, p. 328)
3	Bala Spina	Loralai	-	-	(Mughal, 1972, p. 148)
4	Ghalawa Ghundai	Loralai			(Mughal, 1972, p. 148)
5	Kasiano Dozakh	Loralai			(Mughal, 1972, p. 148)
6	Kohing - II	Loralai			(Mughal, 1972, p. 148)
7	Babari Ghundai	Loralai			(Mughal, 1972, p. 148)
8	Habib Kili	Loralai			(Mughal, 1972, p. 148)
9	Haji Qaim Khan	Loralai			(Mughal, 1972, p. 148)
10	Hamai Karez	Loralai			(Mughal, 1972, p. 148)
11	Khan Mehtarzai - II	Loralai			(Mughal, 1972, p. 148)
12	Kaonri	Loralai			(Mughal, 1972, p. 148)
13	Kashkai - II	Loralai			(Mughal, 1972, p. 148)
14	Kashkai - III	Loralai			(Mughal, 1972, p. 148)
15	Mughal Qila	Loralai			(Mughal, 1972, p. 149)
16	Pathan Kot	Loralai			(Mughal, 1972, p. 149)
17	Wahar	Loralai			(Mughal, 1972, p. 149)
18	Watgan	Loralai			(Mughal, 1972, p. 149)
19	Rogha Kaudani	Zhob			(Mughal, 1972, p. 149)
20	Mata Kaundani	Zhob			(Mughal, 1972, p. 148)
21	Periano Ghundai	Loralai-Zhob	Y	Y	(Fairservis, 1956, pp. 339, 352)
22	Kaudani	Loralai-Zhob	Y	-	(Fairservis, 1956, p. 339)
23	Tor Dherai	Loralai-Zhob	Y	-	(Fairservis, 1956, p. 339)
24	Dabar Kot	Loralai-Zhob	Y	Y	(Fairservis, 1956, pp. 339, 438)
25	Rana Ghundai	Loralai-Zhob		Y	(Fairservis, 1956, 340; 1959, p. 435)
26	Q13	Queta valley		Y	(Fairservis, 1956, pp. 340 - 341, 347 - 348)
27	Q19	Queta valley	Y	Y	(Fairservis, 1956, pp. 338, 340)
28	Q21	Queta valley	Y	-	(Fairservis, 1956, p. 338)
29	Q22	Queta valley	-	Y	(Fairservis, 1956, p. 340)
30	Q25	Queta valley	-	Y	(Fairservis, 1956, p. 340)
31	Q30	Queta valley	Y	Y	(Fairservis, 1956, pp. 338, 340)

32	Q31	Queta valley	Y	Y	(Fairservis, 1956, pp. 338, 340)
33	Q32	Queta valley	Y	Y	(Fairservis, 1956, pp. 338, 340)
34	Spina Ghundai (Habibzai)	Queta - Pishin			(Mughal, 1972, p. 149)
35	Raisa Ghundai	Queta - Pishin			(Mughal, 1972, p. 149)
36	Raisa Ghundai - II	Queta - Pishin			(Mughal, 1972, p. 149)
37	Salezai	Queta - Pishin			(Mughal, 1972, p. 149)
38	Kirani	Queta - Pishin			(Mughal, 1972, p. 148)
39	Spet-Bulandi	Mastung / Sarawan	Y	-	Fairservis, 1956, p. 339
40	Sampur	Mastung/Sara wan	-	Y	(Fairservis, 1956, p. 340)
41	Safaid Bulandi	Kalat			(Mughal, 1972, p. 149)
42	Sampur Damb	Kalat			(Mughal, 1972, p. 149)
43	K2	Kalat		Y	(Fairservis, 1956, pp. 340 - 341, 347 - 348)
44	P4	Pishin		Y	(Fairservis, 1956, pp. 347 - 348)
45	B1	Bolan		Y	(Fairservis, 1956, pp. 340 - 341, 347 - 348)
46	Mughal Kala	Loralai	Y	Y	(Fairservis, 1959, pp. 326, 434)

Appendix 2: Stamped and rope wares from early historic/Buddhist sites outside Balochistan.

S. No.	Site	Region	Province	Country	Stamped Ware	Rope Ware	Reference
1	Shahr 02	Seistan	Seistan/ Baluchistan	Iran	Y	-	(Fairservis, 1956, p. 339)
2	Shahr 07	Seistan	Seistan/ Baluchistan	Iran	Y	-	(Fairservis, 1956, p. 339)
3	Shahr 023	Seistan	Seistan/ Baluchistan	Iran	Y	-	(Fairservis, 1956, p. 339)
4	Shahr 030	Seistan	Seistan/ Baluchistan	Iran	Y	-	(Fairservis, 1956, p. 339)
5	Shahristan	Seistan	Seistan/ Baluchistan	Iran	-	Y	(Fairservis, 1956, p. 341)
6	Begram	Bagram	Parwan	Afghanistan	Y	-	(Fairservis, 1956, p. 339)
7	Shotorak	Kuhi-i-Pahlawan	Kapisa	Afghanistan	Y	-	(Fairservis, 1956, p. 339)
8	Khair Khaneh	Kabul	Kabul	Afghanistan	Y	Y	(Fairservis, 1956, pp. 339, 340)
9	Kot-kat-Dherai	Dera Ismail Khan	Khyber Pakhtunkhwa / Punjab	Pakistan	Y	Y	(Fairservis, 1956, p. 339)
10	Shahidan	Dera Ismail Khan	Khyber Pakhtunkhwa / Punjab	Pakistan	Y	Y	(Fairservis, 1956, p. 339)
11	Surkh Dherai	Dera Ismail Khan	Khyber Pakhtunkhwa	Pakistan	Y	-	(Fairservis, 1956, p. 339)
12	Shurkha-dherai	Dera Ismail Khan	Khyber Pakhtunkhwa	Pakistan	-	Y	(Fairservis, 1956, p. 339)
13	Chichadherai	Dera Ismail Khan	Khyber Pakhtunkhwa	Pakistan	-	Y	(Fairservis, 1956, p. 339)
14	Chaudhwan	Dera Ismail Khan	Khyber Pakhtunkhwa	Pakistan	Y	-	(Fairservis, 1956, p. 339)
15	Dabra Mound	Tank - Dera Ismail Khan	Khyber Pakhtunkhwa	Pakistan	Y		(Stein, 1929, p. 11)
16	Abakhel	Tank	Khyber Pakhtunkhwa	Pakistan	Y		(Stein, 1929, p. 13)
17	Ark-Ghundai	Bannu-Waziristan	Khyber Pakhtunkhwa	Pakistan			(Stein, 1929, p. 15)
18	Pato-Dherai/Budni Dherai	Peshawar	Khyber Pakhtunkhwa	Pakistan		Y	(Ali, 2003, pp. 58, 139, 217)
19	Sheikhan Dherai	Charsadda	Khyber Pakhtunkhwa	Pakistan	Y		(Dani, 1965, pp. 48, 39, 56)
20	Bala Hisar	Charsadda	Khyber Pakhtunkhwa	Pakistan	Y	Y	(Wheeler, 1962)
21	Charsadda I	Charsadda	Khyber Pakhtunkhwa	Pakistan		Y	(Halim, 1972, p. 112)

22	Dherai Zardad Dherakai A-D	Charsadda	Khyber Pakhtunkhwa	Pakistan		Y	(Ali, 2003, pp. 59, 156, 201)
23	Nimorai Dheri	Nowshera	Khyber Pakhtunkhwa	Pakistan	Y		(Jawad, 1996, pp. 218, 221)
24	Khakari Dheri IV	Nowshera	Khyber Pakhtunkhwa	Pakistan	Y		(Jawad, 1996, pp. 221, 229)
25	Khakari Dheri V	Nowshera	Khyber Pakhtunkhwa	Pakistan	Y		(Jawad, 1996, pp. 218, 221)
26	Butano Dheri	Nowshera	Khyber Pakhtunkhwa	Pakistan	Y		(Jawad, 1996, pp. 217, 221)
27	Hund	Swabi	Khyber Pakhtunkhwa	Pakistan	Y	-	(Khan I. , 2017, p. 206)
28	Khar Qamar	Bajaur	Khyber Pakhtunkhwa	Pakistan	Y		(Jawad, 1996, pp. 171, 175)
29	Mena	Bajaur	Khyber Pakhtunkhwa	Pakistan	Y		(Jawad, 1996, pp. 171, 175)
30	Amluk Dara	Swat	Khyber Pakhtunkhwa	Pakistan		Y	(Stein, 1930, p. 21)
31	Jurjurai, Dangaram	Swat	Khyber Pakhtunkhwa	Pakistan		Y	Stein, 1930, pp. 21, 46
32	Udegram	Swat	Khyber Pakhtunkhwa	Pakistan	Y	Y	Stein, 1930, pp. 21, 49
33	Birkot-Ghuwandai	Swat	Khyber Pakhtunkhwa	Pakistan	Y	Y	Stein, 1930, p. 21
34	Jampur Dherai - Charbagh	Swat	Khyber Pakhtunkhwa	Pakistan		Y	Stein, 1930, p. 21
35	Maizare Spur	Swat	Khyber Pakhtunkhwa	Pakistan	Y		Stein, 1930, pp. 21, 49
36	Chat	Swat	Khyber Pakhtunkhwa	Pakistan	Y		Stein, 1930, pp. 21, 49
37	Site 70 - Darra	Lower Dir	Khyber Pakhtunkhwa	Pakistan	Y	-	(Khan I. , 2017, p. 203)
38	Tauda Cheena	Lower Dir	Khyber Pakhtunkhwa	Pakistan	-	Y	(Khan I. , 2017, p. 201)
39	Damkot	Lower Dir	Khyber Pakhtunkhwa	Pakistan		Y	(Halim, 1972, p. 112)
40	Bhir Mound	Taxila	Punjab	Pakistan	Y	-	Fairservis, 1956, pp. 338, 340
41	Sirkap	Taxila	Punjab	Pakistan	Y	Y	Fairservis, 1956, pp. 338, 340
42	Sarai Khola	Taxila	Punjab	Pakistan	Y	-	(Halim, 1972, pp. 256-259)
43	Kundian - I	Mianwali	Punjab	Pakistan		Y	(Ali & Jan, 2005, pp. 11, 31, 48)
44	Tulambha	Sahiwal	Punjab	Pakistan	Y	-	(Mughal, 1967, pp. 23, 27)
45	Rang Mahal	Sri Ganganagar	Rajasthan	India	-	Y	(Dibyopama & Shinde, 2016)
46	Agroha	Hisar	Haryana	India	Y	-	(Fairservis, 1956, p. 339)

47	Mathelo/Mooma l-ji-Mari	Ghotki	Sind	Pakistan	Y		(Bukhari, 2010, p. 32)
48	Shah Shakar Ganj	Sukkar	Sind	Pakistan	Y		(Bukhari, 2010, p. 57)
49	Purani Sangrar/ Kot Mir Muhibullah Shah	Sukkar	Sind	Pakistan	 Submission Draft - Tracking Buddhism ir		(Bukhari, 2010, p. 72)
50	Mamro	Sukkar	Sind	Pakistan	Y		(Bukhari, 2010, p. 80)
51	Misri Shah A	Khairpur	Sind	Pakistan	Y		(Bukhari, 2010, p. 91)
52	Siraj-ji-Takri	Khairpur	Sind	Pakistan	Y		(Bukhari, 2010, p. 86)
53	Saneso Waro Daro/ Sim waro Daro	Khairpur	Sind	Pakistan	Y		(Bukhari, 2010, p. 93)
54	Jamal Shah I	Khairpur	Sind	Pakistan	Y	Y	(Bukhari, 2010, p. 95)
55	Jamal Shah II	Khairpur	Sind	Pakistan	Y	Y	Bukhari, 2010, p. 95)
56	Jamal Shah III	Khairpur	Sind	Pakistan	Y	Y	Bukhari, 2010, p. 95)
57	Nango Pir	Khairpur	Sind	Pakistan	Y		Bukhari, 2010, p. 96)
58	Dubi	Khairpur	Sind	Pakistan	Y		Bukhari, 2010, p. 97)
59	Sirni Kot	Naushero Feroz	Sind	Pakistan	Y		Bukhari, 2010, p. 104)
60	Theriri Mehr Dil Fakhir Chandio	Shahdada ot/Larkana	Sind	Pakistan	Y		Bukhari, 2010, p. 149)