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GOVERNMENT OF PAKISTAN
ISLAMABAD

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Abdul Azeem

Editor
Mahmood-ul-Hasan

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Editorial

A downward trend in archaeological field activities, conservation of monuments and museum research has been felt in Pakistan since decentralization of the subject of archaeology and disintegration of the national institutions in 2011. Prevailing situation has resulted in dearth of quality research works, which has affected timely publication of Pakistan Archaeology. Finally, we have been able to collect some excellent reports and papers from national and international scholars for publication.

Especially, archaeology of Kashmir has become part of this journal for the first time. Azad Jammu and Kashmir is very rich in archaeological heritage sites and historical monuments, however, no major exploratory work had been done in this area since 1947. In order to explore archaeological wealth of Kashmir a team of the Taxila Institute of Asian Civilizations, Quaid-i-Azam University headed by Prof. Dr. Muhammad Ashraf Khan has started survey and documentation of cultural assets around Muzaffarabad and Nelum valley. Inetial results of the survey are very promising, a fair number of rock art sites have been recovered and documented. These rock art sites display the earliest communities settled down or traveled through the region highlighting their thoughts, beliefs and practices. The tentative chronology of these rock art sites ranges between Neolithic to Hindu Period creating an interesting mosaic in the historic profile of Kashmir. An interesting report of the preliminary survey of rock art sites in Kashmir is part of the present issue.

Italian Archaeological Mission has been working in Swat and its adjoining areas for the last 70 years. Countributions of the Italian Mission in the archaeology of Swat are unsurpassed. Dr. Luca Oliveri has countributed an excavations report at the early historic site of Bīr-koṭ-ghwaṇḍai (Barikot), the ancient Bazira of Alexander the Great. In his report he has revised structural and chronological sequence of the site within the chronological limits of the ancient urban settlement (BCE 6th-5th – 3rd-4th CE)., with a focus on the trenches previously excavated in collaboration with the Departmnt of Archaeology and

Museums, Government of Pakistan. The revised sequence is based on the new data yielded by the 2011-2017 excavation campaigns.

Report countributed by Dr. Abdul Azeem provides a very interesting comparative study of the photographs taken by Sir John Marshall during his excavations and conservation work at archaeological sites of Taxila and recent photographs of the same locations. Purpose of this study was to review conservation methods implemented by Marshall at Taxila and evaluation of their long-term suitability, in the light of the principles laid down by the pioneering archaeologist for conservation of archaeological sites and historic buildings in his Conservation Manual that he compiled for use in practical field by archaeological officers and conservators.

Lahore is one of the important walled cities of medieval times, situated on the main trade rout connecting Central Asia and Subcontinent. The city possesses a large number of monuments especially, mosques from early Islamic period to the late Mughal period. A study of the development of mosque architecture in Lahore by Ms. Saira Ramzan is part of this issue.

An overview of archaeological research in Pakistan during the last 70 years has been compiled by Dr. Tahir Saeed in connection with celebrations of the 70th aniversirary of the creation of Pakistan. The article provides exhaustive information on archaeological research conducted by the foreign archaeological missions and national institutions in different parts of Pakistan.

(Mahmood-ul-Hasan)
Editor

Explorations

Discovery of Rock art in Azad Jammu and Kashmir

M. Ashraf Khan*

[1]Sundus Aslam Khan**
Saqib Raza

Abstract

Since the beginning of human world, man has tried to prove his presence on the earth. Wherever he moved, he left his marks in different forms. Whether he lived in caves, in open spaces or in-built structures, he left evidences in art form. Earliest of which are the cave paintings witnessed in the various regions of the world. It further transformed into open spaces where man carved and painted images and writings on rock faces and boulders. Although, Pakistan remained an early home to such art forms but, it was discovered in Kashmir for the first time which is going to be revealed in this paper. Under the present survey, a great number of rock art sites have been found and documented in detail. These rock art sites display the earliest communities settled down or traveled through the region highlighting their thoughts, beliefs and practices. The tentative chronology of these rock art sites ranges between Neolithic to Hindu Period creating an interesting mosaic in the historic profile of Kashmir.

Keywords: Rock art, Kashmir, Neolithic, Inscriptions, Shamanic Rituals

Prologue

For several thousand years, man have been using as canvasand drawing board, the rock surface, canyon wall, rock helter and boulder to produce drawing by the application of paint (rock painting) or the cutting away of rock surfaces (petroglyph) are example of what I known rock art. They were the people who occupied this area from the early hunter gatherer societies to the present day, hey were made for many purposes. Theseimages pecked into or painted on stone are a valuable component of the archaeological record. Often found in the spectacular settings of these people's most sacred places, rock carvings and paintings represent the intimate connection between native people and their spirit world. Rock art, in addition, also provide other kinds of information for the

*Prof. Dr. M Ashraf Khan, Taxila Institute of Asian Civilizations, Quaid-i-Azam University, Islamabad.

**Sundus Aslam Khan, Ph.d Scholar Taxila Institute of Asian Civilizations, Quaid-i-Azam University, Islamabad.

archaeologistsas it is a sensitive tool for identifying cultural relationships, patterns of communication, evidence of trade and other type of cultural contact. Changes in style and content of rock art are often indicationsof the adoption of new ideologies and religious practices, which in turn reflect other shifts within the cultural matrix (Schaafsma1986 :1-3).

In archaeology, rock carvings involve impressions, images and signs on natural stones, made by human in past times. This art remained famous throughout the world in two basic forms: petroglyphs, which are carved into the rock surface area and pictographs, which are the painted images onto the rock surface. Rock art is a landscape art which includes designs, motifs that have been placed on boulder of rock or cliff face, cave walls and ceilings and on the ground surfaces (Whitely 2005:1-3). Rock art further grabs cup-marks into the field which are shallow or deep cup-like marks into the boulders of rock or megaliths. Although, the main purpose behind this art form is still unknown to us however, they are said to be made for shamanic rituals and/ or fertility practices. They are found from North America, Europe, Asia, Africa and the pacific islands and may have a common purpose and timeline (Varne 2012: 5-11).

Beginning of Rock Art in Pakistan

The earliest rock art sites in Pakistan are reported from northern areas; swat, Shattial, Chitral, Mansehra, Hunza, Yasin and other regions of Gilgit Baltistan.Among the famous rock art sites of Gilgit Baltistan are Royal Inscription Danyor,Karga Buddha, Konodas rock carvings (Dani 1983) and Haton rock inscriptions of PatolaShahis (Jettmar 1993:77-122).From Shattial (Indus Kohistan) to Alam Bridge site (Diamer), 92% rock art sites are reported (Arif 2002: 8-10). According to Dani (1983), the primitive society of Gilgit Baltistan was the first to exploit natural resources of the region. Arif (2002: 11) also termed these ancient men of Gilgit Baltistan as ‘Rock art people’. These people lived in rock-shelters, megalithic structures and caves. It is justified from the discoveries of rock-shelters at Konodas site near Karakoram University, Gilgit. Many rock carvings are also found near this this site. The megalithic sites are seen throughout Yasin valley (Dani 1983: 53-64).

Due to important geographic position, this region always attracted travellers, pilgrims and invaders. Three famous Chinese pilgrims; Faxian, Huan Tsang and Song Yun travelled through this region to go further into Gandhra valley in 4^{th} -5^{th} CE (Jettmar 1993: 80). It served as a platform to transport

Buddhism into Central Asia, Tibet and China. This is the reason we find thousands of Buddhist rock art sites in this northern area ranging from stupas, Buddha images, Buddhisattvas, pilgrim images, inscriptions; Chinese, Tibetan, Brahmi, Hebrew, proto-Sharda, Sanskrit, Persian and Sogdian (Dani 1983; Humbach 1985; Hauptman 1997; Jettmar 2008).

This is not all we find from the rock art book of northern areas of Pakistan. Its history further goes back into prehistoric era which gives us representations of animal figures, human figures, demons, fire alters, unidentified markings, abstract and spiritual symbols and many geometrical designs defining a hunter-gather society to Neolithic era (Mathpal 1998: 47-53; Jettmar 2008: 66). Outside northern regions, Sindh province of Pakistan also provides us some rock art sites in Angai valley, ShakloiDhoro, Dadhu and Kirthar (Kalhoro 2010: 17-18; 2013; 2014). F D Kakar (2003: 22) have also reported 175 rock paintings in the southern Sulaiman Range in Baluchistan during his survey in 1995-96. The subject of these paintings revolved around the fauna and flora of the land where we can find leopard, *markhor*, wild sheep, wolves and horses.

Beside the vast expansion of rock art, its dating remained a very complicated job. There is no straight-line strategy defining the absolute dating of rock art, although, researchershave suggested some techniques to identify aframe of era for rock art sites. It is done with the realization of color of patina on the rock and studying the chiseling/ carving techniques and tools with stylistic features of the art forms. Thus, with the help of these studies, rock art of Pakistan is placed between 5000- 10,000 BCE (Qamar 1985: 141) to 8th Century CE.

Discovery of Rock art in Azad Jammu and Kashmir

A new chapter in the history of rock art of northern areas of Pakistan begins with the explorations of a team of researchers from Taxila Institute of Asian Civilizations, Qauid-I-Azam University, Islamabad in 2013. In the said surveys, six rock art sites are found in different districts of Azad Kashmir. Below, we give the detailed description of these sites.

1. AthmaqamRock carvings

The site is locally called*Khizanmatti*. The rock is found in a steep hilly area near a waterfall named *nagdar*, at a distance of about 8 km in the north- west of Tehsil AthmaqaminNeelum District of Azad Kashmir.

The Nagdar*Nulla*(stream) is connected in the south-west by the towns of Jatri, Jhart, and Phat. The boulder is present in a sloppy outcropnear a running stream and depicts three different groups of Sharda Brahmi inscriptions, lotus flower, a bird and two different forms of *trisula*. The Sharda Brahmi inscription is engraved on the north western edge of the rock. The Sharda or Sharada alphabet developed from the Brahmi script during the second half of the 8th century AD. The earliest known inscription in the Sharda alphabet dates from 774 AD and was discovered in a village called Hund in the west of Pakistan. It remained in popular use for several centuries in an extensive area of Western Himalayas including Khyber PukhtunKhawa, Dardistan, Kashmir, Jammu, Ladakh and Himachal Pradesh. Sharda script was used to write Kashmiri, Sanskrit and a number of other languages in the northwest of India, the Punjab, Himachal Pradesh and in parts of Central Asia. Unfortunately, the knowledge of this important script is fast disappearing threatening thereby the loss of this rich and proud heritage of Western Himalayas to posterity forever. Today only a small group of Brahmins continue to use the Sharda alphabet for writing and calculating astrological and ritual formulations (Deambi, 1982: 128).

The Quality of writings is technically good as straight lines are drawn perfectly rounded or curved lines of the inscriptions have a harmony and flow. Some words are complete and few partially damaged. The inscriptions are not yet deciphered. The bird figure seems to appear as a peacock with a crown on head and a closed plumage. In Indian philosophy, peacock isassociated with KashmiriShivismwhich speaks of entire manifested variety is in perfect unity (Patil 2003: xxii). Depiction of *trisulas* and lotus beside the peacock motif also confirms Shiva cult in the region back in 3^{Rd}-4^{th} centuries. Kashmiri Shivismalso known as*Trika*, originated in Himalayas in circa 400 BCE and reached its zenith between 10^{th} and 11^{th} centuries (Tikoo 1990) These symbols are apparently deeper, suggesting as engraved by a sharp tool. The color of the stone has turned in to reddish hue due to the harsh climatic conditions.

2. Sharda cup marks

Sharda is a tehsil in district Neelum of AJK which has the famous Sharda temple belonging to 6^{th} century. It is on the left bank of river Neelum (Kishan Ganga). Here we find three rock boulders with a series of cup marks in the vicinity of Sharda temple. Boulder no. 1 is lying vertical with 10 cup marks regularly carved in two rows as seen in figure no. 10 and 12.

Boulder 2

Boulder no. 2 is located across the nearby stream *madhumatti.* it faces sky holding 14 cup marks in a sequence where a row of two marks are at the both starts enclosing two rows of 5 cup marks forming a cross sign. This boulder lies in an ancient megalithic graveyard dating around 4th Millennium BCE.

Boulder 3

Boulder no 3 is also located across the stream *madhumatti* in the surroundings of a Dogra checkpost. It is buried in the earth, but three cup marks can be seen on the outer surface of the boulder measuring 3 x 2 cm.

3. Kotli Saula cup marks

The site is located about 1 km south-east of MunshiMorh in tehsil Charhoi of district Kotli. The boulder measures 7.31 x 3.04 m having 33 cup marks. The site is situated along the modern settlement, slightly downwards from the settlement level. The Rock boulder is facing towards the west. River Gother flows nearby in the south-east direction of the site. Main townof Kotli Saula is situated at its east direction. The area is surrounded by Dargoti Mountains. The rock boulder is found in the vicinity of Kotli Saula caves.

4. Kotli Saula rock carvings

Thiscave is present near the above-mentioned cup-mark in a mountainous area on a hill top, facing east. The cave is made in a sand stone rock with 3 cells and a veranda at front measuring 2.4 meter in length, with two Corinthian pilasters and a small carved chamber on front with a deep cup markwhich probably used for placing *shivalinga*. A *shivalinga* like carving is also observed on the façade of the cave which also points to associate this cave this cave as a Shiva shrine. The site is badly deteriorated from inside but, on its outer part, we can still see architectural elements like lotus petals on the pilastersand some carvings over them.

5. Chitarpari Rock carvings

Thiz site is located near Mangla Dam on south of Dina to Mirpur main road, in west of Mirpurditrict. The ite contain a boulder measuring 6.5m x 3.5m.

The sand-stone boulder looks like a rock shelter, apparently broken into two pieces and disturbed. On the upper section of boulder there are zoomorphic,

anthromorphic figures, giant or human demonic figure and geometrical/abstract shapes engraved with picking technique. The giant or human demonic dancing figure is carved with legs joint, extended arms, small head with radiating rays. One figure depicts a female in dancing pose on the northern edge of the boulder. Two horses one with rider in pose are also seen along with a goat and a circle in solar round shape. Two horizontal structures are also found over an open-air rock surface. Cup marks twelve in number, in varying sizes, are also seen. The largest cup-mark measured 0.3m in diameter and 0.05 m in depth. Since we are concerned with Kashmir, we may look back to the research carried out in Kashmir Valley. A number of early rock art discoveries were made during the nineteenth century in the Himalayan region. Here rock art is best known from two areas, Laddakh and the Kumaon Himalayan region of Uttar Pradesh. Sixty-eight such sites have been reported in the Kumaon: 10 pictograph sites and fifty-eight petroglyphs. Painted sites occur in semi-open rock-shelters and occasionally on open boulders. They are frequently found in association with megalithic monuments, suggesting a date of around the late second to fist millennium BC (Methpal 1995: 25-60). Painted figures are generally anthropomorphs, illustrated with a variety of material culture typical of dancers and hunters, while zoomorphic figures and to represent domesticated fauna, suggesting that sites with such depictions post-date the appearance of pastoralism in this region. This site closely resembles those found in the Himalayan region. On the basis of available evidences and inconclusive study, the explorers have placed the site in the 3rd to 1st millennium BCE. The rock carvings are largely defaced making it difficult to read or even recognize many motifs.

Most of the rock carvings of Azad Jammu and Kashmir are located where the lithic geological bend, the low mountain ecological habitats and low mountain roads intersect each other. Sometime these sites are found near the rivers and lakes.

Chitarpari Cup Marks

Cup mark at Chitarpari are made in a boulder with Measurement of 4.1m x 2.05m. The boulder 1 contains 2 beautiful series of 21 and 15 cup marks. The tentative timeframe of these cup marks is 3rd Mil to 1st Mil BCE. Kashmir boosts one of biggest collection of cup marks. They are located where four factors are present together on good rock outcrops, human habitats inter-regional roads and water resources. A large number of cup marks can be found on the top

and ridges of isolated granite and sand stone boulders on horizontal and vertical surfaces, sometimes together with petroglyphs. At Chitarpari these cup marks are found on several boulders along with the rock carvings.

6. Bihal cup marks

In the surrounding of an ancient baoli (water tank) at Bihal village of Khoiratta, a piece of rock shows 10 cup marks. These cup marks are in poor state of preservation which can be viewed in Fig.30.The rock art of Azad Jammu and Kashmir demands immediate attention.

7. Pirchinasi Hand impressions

The site is located at a distance of 30 km east of Muzaffarabad city on the top of Nanga Mountainat an elevation of2781m.

It contains a rock boulder measuring 1.03x 1.83x 0.83 m, oriented in east-west direction having nineteen hand impressions carved with small and refined tools. Pecking technique has been used in carving these hand impressions. Hands impressions have been found in very remote antiquity in different parts of the world and are commonly found in Australia and Europe.Ucko and Rosenfeld (1967:239) summarize rock art as art of many living ‘primitives. According to them some representations seemas work of children (perhaps floor engravings), some were used in the acts of sympathetic magic (representations with pierced holes), some were placed in order to please (perhaps some open-air low reliefs), some were illustrations of myths and traditions (perhaps those with imaginary creatures, anthropomorphs and unexpected combinations of animal species). It I very possible, however, that some and perhaps many Paleolithic representations were made for reasons which still totally escape the modern observer.

Hands and feet impressions in Asian part of the world have generally been associated with religious personalities. However, the kind of carvings in very rudimentary and crude form speaks of their being very old. Rock art has gone to the Paleolithic period and quite common in some parts of the world during the Mesolithic and Neolithic period and of course historic period is no exception. These carvings are placed in the Neolithic period, but only further study and scientific approach and comparison with such carvings in other parts of the region and other continents will greatly help in precise dating. The area of the site has gained large fame for its *ziyarat* of a famous Saint Pir Shah Hussain Bukhari.

Similar hand impressions have also been reported in Gilgit Baltistan region (Thalpan, Chilas, Thour, Dum Sum and Haldi) recorded by German archaeological mission of Heidelberg University Germany and a team of the Taxila Institute of Asian Civilizations, Quaid-i-Azam University, Islamabad, dated 3rd millinium B.C.

Conclusion

Rock art has always remained a vital source in archaeology to know about the primitive communities inhabited in a region. Throughout the world, we come across a huge number of rock art sites verifying the existence of man. Similarly, in Pakistan, Northern areas remained focus of the researchers in the mentioned field exploring thousands of rock art sites specifically in Gilgit Baltistan and Swat valley. However, the evidences presented in the paper show a picture of the earliest inhabitants of the region of Azad Kashmir. The engravings tell something about their belief and social system back in prehistoric to medieval periods. Tthese carvings do not let us know the whole of past man, rather they serve like scattered codes which need to be collected throughout the land that ancient man moved around and left these marks for us to decode. It tells us of hunter gatherer societies to historic eras where this carving culture stood side by side with paper scriptures. This art work also shows the affiliation of those past people with their culture to such a huge level that wherever they were roving, they were drawing their ideas and promoting their philosophies. Though, much work is still remaining in the area to know more about the ancient cultures and communities, but the discoveries of rock art sites in AJK are ample to place this region in the list of earliest inhabited regions.

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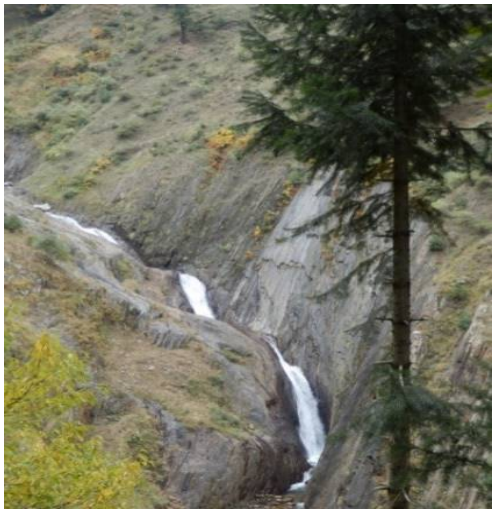

Fig. 1. Nagdar stream, Athmaqam.

Fig.2 Team of researchers at Nagdar, Athmaqam.

Fig.3. Boulder showing name of the site.

Fig.4 position of the carved boulder along Nagdar with date, Athmaqamstream, Athmaqam

Fig.5. Rock showing *trisula*, lotus, bird and inscription, Athmaqam

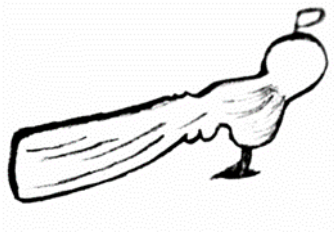

Fig.6. Close image of the bird (peacock), Athmaqam, its diagram on right

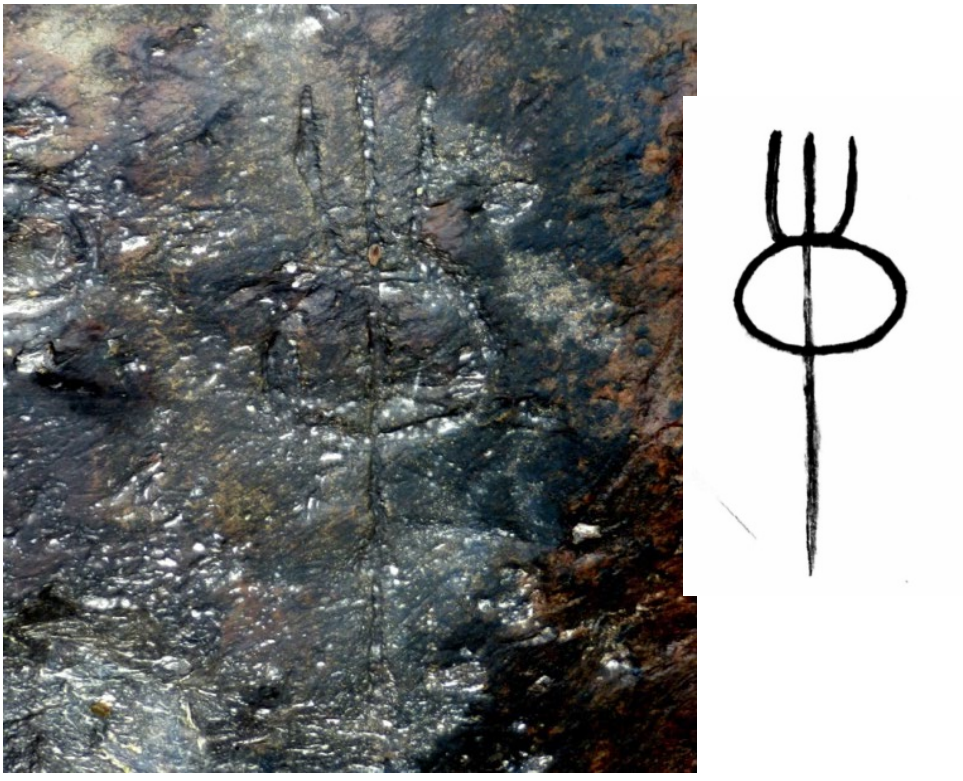

Fig.7. *Trisula*incised on the boulder, Athmaqam, a diagram on right.

Fig.8. Lotus flower carved on the boulder, Athmaqam, its diagram on right.

Fig.9. Anotherform of *Trisula*carved on the boulder along the inscription, Athmaqam with its diagram on right.

Fig.10. Cup Marks I, Sharda.

Fig 11. Measurement of the boulder at Sharda.

Fig.12. Boulder 2 showing 14 cup marks, Sharda

Fig.13. Boulder no 3 with 3 cup marks, Sharda

Fig.14. Cup marks on a rock at Kotli Saula

Fig.15. Front view of the rock-cut cave, Kotli Saula

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Fig.18. Another unidentified mark on the pillar of cave, Kotli Saula

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Fig.21. Goat with Offspring and Above Cup Marks, Chitarpari.

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Fig.23. Zoomorphic figures, Chitarpari.

Fig.24. Horse-rider carved on boulder, Chitarpari.

Fig.25. Sketch of Horse-rider, Chitarpari.

Fig.26 Tracing of a Horse figure, Chitarpari.

Fig.27. An Abstract symbol, Chitarpari.

Fig.28. Some other abstract symbols, Chitarpari

Fig.29. Cup mark on boulder no 2 surrounded by marks of cow-dung, Chitarpari.

Fig.30. Cup marks carved on a boulder at Bihal, Khiratta.

Fig.31. Pirchinasi Rock Bolder with hand impressions.

Fig.32. Pirchanasi, numbering of the hand Impression.

Figure 33. Documentation of the Rock Bolder at Pirchanasi.

Excavations

*Fig. 1 – The site of Barikot and its acropolis (*ghwandai*) seen from the N side of Mt. Ilam (Photo by LMO)*

IsMEO/IsIAO – DOAM Excavations at Bīr-koṭ-ghwaṇḍai 1984-1992.
A Reassessment of the Chronological Sequence on the Basis of the Latest Fieldwork at the Site

Luca M. Olivieri and L. Colliva

Introduction

Excavations at the early historic site of Bīr-koṭ-ghwaṇḍai (Barikot), the ancient Bazira of Alexander the Great (Tribulato and Olivieri 2017) started after almost ten years of explorations of the protohistoric phases of the site carried out by G. Stacul (Stacul 1987). The new project was launched in 1984 by the then IsMEO (from 1992: IsIAO) in cooperation with the Department of Archaeology and Museums (DOAM), Government of Pakistan, under the direction of P. Callieri. The first departmental representative was Mr. Aftab Ahmad Khan (Karachi National Museum), the last in 1992 was the current Director of DOAM Dr. Abdul Azeem, at that time Field Officer of the Sub Regional Office NWFP (SRO Peshawar). The excavation reports were at that time first published in the Department's official journal *Pakistan Archaeology*, as required by the excavation license (Callieri et al. 1990, Olivieri 1993). The excavations at the lower city were interrupted in 1992, while those at the citadel were concluded in 2000. Excavations resumed in 2006, and then expanded to a larger scale from 2011 onwards.

The following pages present a revised structural and chronological sequence of the site within the chronological limits of the ancient urban settlement (BCE 6th-5th – 3rd-4th CE), with a focus on the trenches excavated in collaboration with DOAM (BKG 1, 3, 4-5). Trench BKG 2, which has a later chronology, is not here considered. The revised sequence is based on the new data yielded by the 2011-2017 excavation campaigns (see a synthesis with bibliographic references in Olivieri 2018) [1].

General description of trenches (Fig. 2) [2]

[1] The article presents an overview, which is by and large an anticipation of a chapter of a forthcoming monographic study on Barikot ceramics (Callieri and Olivieri, forth.).

[2] This section is the elaboration, with major changes, of part of Colliva 2011.

Trench BKG 1 (Callieri et al. 1984: 484-493)

Trench BKG 1, excavated in 1984, measures 25 x 10 m and was opened on the plain at the foot of the hill. Ten structural periods were identified above the sterile soil, located at a depth of 9.32 m. from the present field surface.

Gray ware pottery of protohistoric tradition associated with new shapes in red ware suggests a date between the 3rd and the 2nd century BCE for Period I. Particularly relevant is the finding of a sherd with a Greek letter incised (Tribulato and Olivieri 2017). Pottery and other materials found in the stratigraphic units of Period II and Period III, among which a terracotta figurine of the type known as "Baroque Lady" seem to belong to the same cultural horizon. Among the discoveries made in Period IV we note the appearance of some new pottery types, a coin of the Indo-Greek king Strato I (c. 120 BCE) and a small Hellenistic head (belonging to a terracotta figurine). These findings suggest a date at the beginning of the 1st century BCE.

The imposing structure of Period V partially rests on the ruins of abandoned buildings of the previous period; between the finds a coin of Azes, a small terracotta grotesque mask of Hellenistic type and a small fragment of green glass, probably of Syro-Roman origin, which indicates that this settlement was included in the trade circuits with the West. The findings suggest a dating to the 1st century CE.

Period VI is characterized by the destruction of some structures of the previous period and by the construction of new walls on the clay layers that filled the southern area. The substantial continuity in the pottery suggests the same cultural horizon of the previous period.

At the end of Period VI the area south of a massive Period V wall is marked by the excavation of a large ditch meant to drain water. The structures that are constructed in the subsequent period (Period VII) were found to have, in at least two cases, drainage channels flowing into this ditch.

Fig. 2 – Archaeological map of BKG area with location of the Trenches (Elaborated by E. Iori and LMO after Olivieri 2003 [General Map]*)*

In Period VII, we found some structures characterized by a good “diaper masonry” and a portion of street paved with river pebbles. The two periods have been assigned to the 2nd-4th century CE. By the end of Period

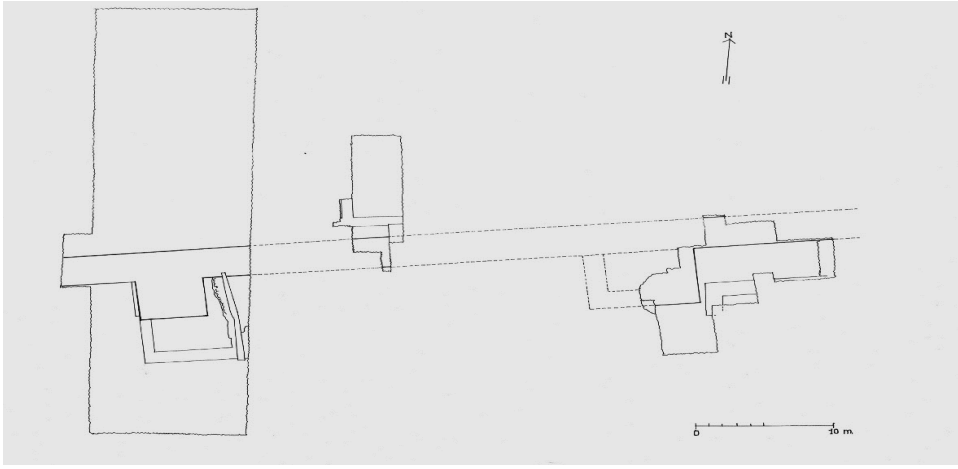
VII, we observe a substantial abandonment of the plain and a shift of the settlement at the foot of the hill (Trench BKG 2). The area is still occupied, but probably only for craft use linked to pottery production. Ceramic materials allow a chronological distinction into two different periods.

Period VIII is represented by only two stratigraphic units that have a substantial continuity with the findings of Period VII.

Period IX, however, is characterized by the presence of new ceramic forms and by the appearance of the Black-and-White-on Red Ware; similarities with Period V of the site of Damkot and the discovery of some Hindu-Shahi coins confirm a date between the 8th century CE and the Islamic period.

In Period X, instead, we observe a new residential use of the area. Similarities between pottery found in this period and that in the Mughal layers of the site of Ghalegai, the discovery of a fragment of turquoise glazed pottery, not in use before the 15th century, and the local tradition, which has no memory of settlements in area in the last century, set this latter period between the 15th and the 19th century.

Trench BKG 3 measures 40 x 12.5 m., with its main axis oriented in a N-S direction and was opened in 1987 near the trench excavated in 1985 by Stacul, who first identified the city walls (Filigenzi and Stacul 1985), Stacul 1987). The excavations brought to light some protohistoric levels, studied by Stacul, as well as numerous remains of the historical period, including a portion of the perimeter Wall of the city, excavated and studied under the direction of Callieri. Given the lack of physical connections between the stratigraphy outside the perimeter Wall, on the S part of the trench, and the inner one, in the N area, it was necessary to distinguish between the two stratigraphic sequences.



In the S part seven structural periods were identified; the first one (Period I) is characterized by a stratigraphic sequence linked to period IV (1700-1400 BCE) and later periods of the Swat protohistoric sequence based on the excavations carried out at Ghalegai (Stacul 1987).

Fig. 3 – Map of Trenches BKG 3 (1987, left), BKG M (1985, centre), BKG L (1985, right)
(Drawings by F. Martore, after N. Olivieri†)

Trench BKG 3 (Callieri et al. 1990: 163-183) (Fig. 3)

The next three periods identified (Periods II, III and IV) are related to construction and use of the city Wall and can be dated, on the basis of the findings, to a period ranging from the 2nd century BCE to the Kushana period. The fortification Wall (2.70 m thick) runs in an E-W direction and is made of slabs and blocks of stone and pebbles. The section includes the excavated remains of a projecting rectangular bastion; we also found traces of a defensive external moat of which only the N slope was excavated (see also Olivieri 2015).

A subsequent structural period, in which the Wall lost any defensive function and the structure was used as a revetment for new buildings (Period V), cannot be dated with certainty; in the last two structural periods, the area was abandoned and used as a burial place (Period VI) and later as an agricultural area (Period VII).

In the part of the trench lying North of the perimeter Wall, structures were found belonging to a large and imposing complex of a palatial nature,

which is characterized, despite some modifications and reconstructions, by its long life. This complex was built during what in the South of this trench has been identified as Period III and has four distinct phases of development: phase 1a = III; phase 1b = IVA; phase 2 = IVA; phase 2b = IVB.

The life of this complex ends with a period of collapse and abandonment (Phase 3) that seems to coincide with the Period V of the S part. Even here, some proto-Islamic burials (Phase 4) and traces of levelling for agricultural purposes (Phase 5) already mentioned above (Period VI and Period VII of the S part) were found.

Trench BKG 4-5 **(Callieri et al.1992: 5-35; Olivieri 1993)**

The area selected for the excavation of this trench is located SW of the plain. The excavation was carried out in the course of three campaigns (1990, 1991 and 1992). The total area affected by the excavation is approx. 2000 sqm. Exploration of this trench unearthed the SW corner bastion and two portions of the Indo-Greek Defensive Wall, respectively for a length of 30 m in an E-W direction (S stretch) and 35 m in a NW-SE direction (W stretch). The Wall has a thickness of about 2.70 m; the external facing is made of slabs, large river pebbles and square blocks; the inner core, however, is composed of large pebbles. The SW corner bastion was five-sided, with two opposite sides running parallel, about 7 m wide. On the S side, two massive bastions, rectangular in plan, were brought to light at a distance of 28.5 m between them, while the west face of a third bastion was identified on the western stretch of the south side of the city Wall at a distance of 29 m East of the corner bastion. On the west side, another bastion has been found, standing at a distance of 27.5 m from the corner bastion (in total on the W stretch of the Wall four bastions have been documented: Olivieri 2003, and Olivieri et al. 2014). Thus, the distance between the bastions or towers is approximately 29.5 metres, the Attic *plethron*.

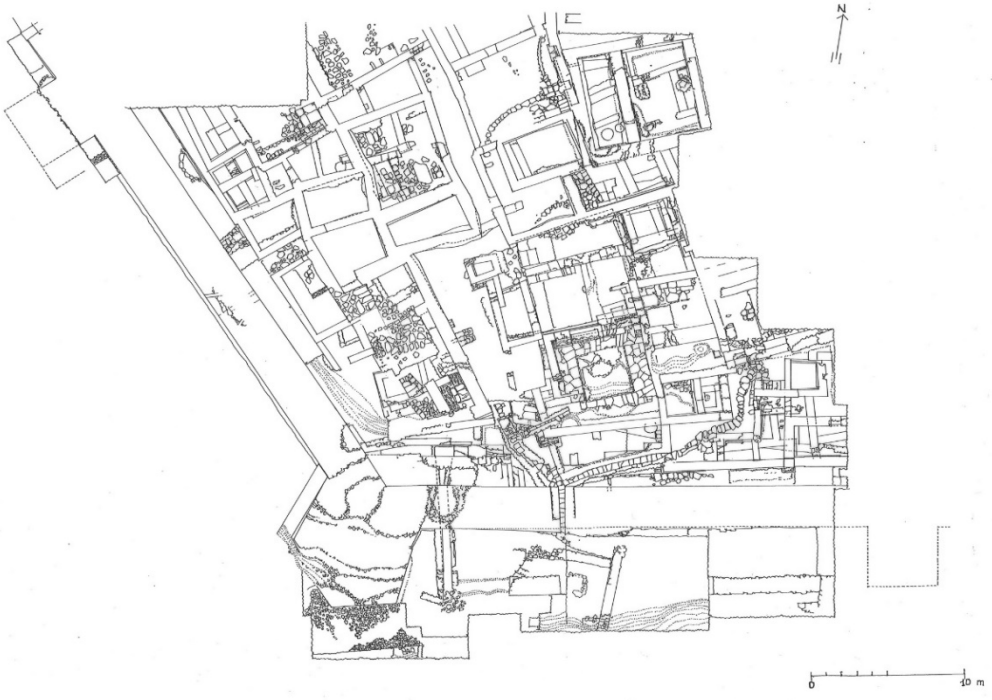
As in Trench BKG 3, excavation revealed traces of a moat parallel to the S side of the Wall. Parallel to the S and W sides of the Wall, at a distance of between 5 and 8 m from it, runs a steep slope which cuts into the layers in front of the Wall and probably represents the North side of a wide moat whose South side, reascending southwards, is probably located to the south of the excavated limits of the trenches. Our assumption that it is an artificial cut and not a natural slope is borne out by the fact that it runs parallel to the Wall and turns south on reaching the corner bastion. The outlet of a drain (0.50 m wide and 0.80 m high) which allowed water collecting in the walled area to run off, was built at the base

of the Wall, on the southern side, at a short distance from the corner bastion, and a similar outlet was also found on the W side.

Lack of any physical connection between the intra-extra layers of the Defensive Wall made it difficult to establish precise chronological links and therefore two different stratigraphic sequences were envisaged: excavations outside the Wall were divided into eight phases, while ten distinct structural periods were identified inside the city Wall.

Phase 1, prior to the construction of the Wall, shows signs of pits and masonry foundations with a superstructure of mud brick. The materials point to a chronology linked to period V-VII of the Swat sequence.

A phase of probably deliberate destruction and re-use of the area follows this first phase. The materials are associable to periods VIII of the Swat



protohistoric sequence. Traces of wooden structures and fires were found.

Fig. 4 –Trench BKG 4-5 (Drawings by F. Martore, after N. Olivieri†)

During Phase 6, a new change in the ground level required the construction of an additional drainage system through the demolition and subsequent reconstruction of part of the perimeter Wall. This work evidences a clear connection between this phase and the Period VI of the internal sequence. This stage is characterized also by the construction of a long external masonry structure parallel to the Defensive Wall at a distance of c. 3 m. This structure was more an embankment than a *proteichisma*, and was meant to serve as a passageway, and to strengthen the outside base of the Wall, which had lost any defensive function, but was still serving as a retaining wall for the built-up area.

Phase 7 is characterized by a few layers of stones and earth from the collapse of the buttress of the previous phase, and are themselves covered by other debris from the collapsed Wall. Despite the collapse, the drainage system is still working.

In Phase 8, a new structure was built over the city's main drain, and adjacent to the walled city, at c. 20 m from the angular bastion. This structure has a rectangular plan (3.40x1.28) and is preserved to a height of 0.32 m. It functions as a stairway leading to the top of the remains of the Defensive Wall. The razed surface of the latter was evidently utilized as a passageway [1].

[1] The dating of the fortified city with its Defensive Wall and the *acropolis* (hilltop) with their associated layers and materials from the outset seemed clearly defined by the coin assemblage. Indo-Greek coins and three inscribed potsherds with Greek letters were found in the layers associated with the early phase of the Wall (Tribulato and Olivieri 2017). A late 2nd century BCE chronology (= Macrophase 3) for the Defensive Wall layers (c. 130 BCE) has been positively obtained. It is therefore possible that the construction of the Defensive Wall occurred in a mature phase of the Indo-Greek power in North India (mid- or end-2nd century BCE). The possibility that Barikot was fortified before the reign of Antialkidas Nikephoros is – for the moment – something more than a working hypothesis (see Olivieri and Iori 2019 [in press]).
The 2016 excavation campaigns and the data collected added important new details to the picture. In simple terms ancient Barikot revealed the totally unexpected presence of a "Bhir Mound or Charsadda Horizon", with radiocarbon dates coherently picturing a mid-3rd century BCE. That means that a town was already well-established (= Macrophase 2) when it was fortified in the mature Indo-Greek period (= Macrophase 3) (on the Macedonian phases, cf. Olivieri 1996 with Olivieri and Iori 2019 [in press]).
In the central part of the city a few elements belonging to Macrophase 2 had already been noted in 1985 (Trenches BKG L and M). Anna Filigenzi in her unpublished report noted the presence of *three* superimposed structural phases antecedent to the Defensive Wall, and later than the few layers datable to Late Bronze Age, or "period IV" of the Ghalegai sequence (the report was published in a somewhat different form in Filigenzi and Stacul 1985). Amongst the material from the last of these three structural layers, the presence of tulip-bowls ("the quintessential Achaemenid vessel form": Petrie et al. 2008: 5) (like bowl BKG 935, unpublished), and an

The area of the trench inside the Wall reveals ten structural periods.

Period I includes the remains of the foundations of several structures. The foundation trenches of these structures are cut out of a clay layer that partially covers the alluvial slope. The floors are made of clay with the addition of a few slabs; the superstructures, probably in mud brick, have not been preserved. Period I ends in a period of abandonment characterized by clay layers in which the foundation trenches of some new structures of Period II were dug. The materials found in the stratigraphic units belonging to these two periods are comparable to those from Phases 1 and 2 (see above; see also fn. 13).

Period III is marked by the construction of the imposing city Wall previously described. Both sides of the Wall were erected inside a foundation trench cut into a thick anthropic clayish layer[1].

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important vase of clear Hellenistic features (BKG 1013, unpublished), is noteworthy.

More data were revealed by the 2015 and 2016 excavations outside the Defensive Wall. The construction of the Defensive Wall was preceded by the cut of a long stepped foundation trench dug into an intensively artificially modified slope that had obliterated all the preexisting stratigraphy (Macrophase 2), revealing the far earlier Iron Age structures (Macrophase 1 = end-2nd/beginning-1st Millennium BCE). This intensive levelling work caused the partial obliteration of the post-Iron Age stratigraphy (Macrophase 2) all along the Defensive Wall (both inside and outside) in the SW sectors of the city. Here the existence of the Macrophase 2 stratigraphy is revealed only by thick layers of displaced soil and small fragments of stone walls dated to 4th-3rd century BCE (see Appendix 5).
A similar situation to the one documented in the SW sectors of the city, where it was recently documented during the reassessment of the pre-Buddhist stratigraphy at the site of the monastery of Saidu Sharif I. There, some large-scale levelling work performed at the time of the construction of the Buddhist complex (1st quarter of the 1st century CE), radically removed all the previous stratigraphy, also partly cutting the upper layers of a late-protohistoric graveyard (4th century BCE), which appeared to the archaeologists as though it was directly cut by the foundation walls of the monastery. Instead, the recent study of a long section outside the monastery area revealed that the graves were covered by burial mounds, as well as by a subsequent stratigraphy, which was artificially removed inside the monastery area (Olivieri 2016). The same situation appeared to have happened at Barikot too.

[1] Amongst the various aspects related to the construction of the Defensive Wall the burial, most probably ritual, of a young woman and a small mammal (a dog?) is noteworthy. C14 analysis of the human remains afforded an interesting end of the 2nd century-beginning of 1st century BCE chronology.

Period IV is closely related to Period III; the new structures actually re-use material from the walls of the previous period, and their foundation trenches are often cut into the last floor of that period. Findings, in particular a Hellenistic *èmblema* on the bottom of a cup (BKG 1516) and some coins ascribed to the Saka dynasty, allow this period to be dated to between the 1st century BCE and the middle of the 1st century CE [1]. In Period IV, the angular bastion was provided with a staircase on its inner NE side.

The numismatic finds also suggest a dating of the structures of the following Period V from the middle of the 1st century CE to the first half of the 2nd century CE.

It is probably in Period VI that the city Wall loses its defensive function: the Wall appears to be partially collapsed and we find a masonry drain on its remains. However, the staircase abutting the corner bastion is still in use. The most important structure of this period is a small sacred area. This small Buddhist shrine is characterized by a courtyard with a stupa in the centre; on the North side of the courtyard we also found three shrines, built at a later stage (Period VII and VIII). Again, the numismatic findings allow us to assign Period VI to mid/end-2nd century CE.

Period VII witnesses the construction of two large residential units separated by a lane. Among the finds from the layers of this period, late-Kushan and Kushano-Sasanian coins are particularly significant and suggest a date around the 3rd century CE. In Period VIII the structures adjacent to the city Wall, already seen in previous periods, continue to be utilised. There seems to be a substantial cultural continuity between Period VII and Period VIII (as proved in BKG 11; see Olivieri et al. 2014) and Period IX. These three structural periods, from a chronological point of view, seems to fall within the end of the 3rd century CE (Olivieri 2012).

[1] This chronology perfectly matches the data from Period IV revealed in BKG 11 (C14: 53 BCE-18 CE) (Olivieri and Iori 2019 [in press]).

Period IX (which has been thoroughly investigated in BKG 11; see Olivieri et al. 2014) has been identified here only in the central and N sectors of the trench. The houses have partly collapsed but are still in use. The process of abandonment is definitive in Period X, which is characterized by the presence of minor makeshift structures, showing that the area was not completely abandoned (see Period IX in BKG 11).

Fig. 5 – The "Birkot Pass". The SW corner of the mound of the ruined city as it appeared in 1930 (view from W). The main old road is visible at the centre. (Photo taken by the future last Wali of Swat Miangul Jahanzeb on 14th April 1930) (Courtesy of the Miangul Family). [LC and LMO]

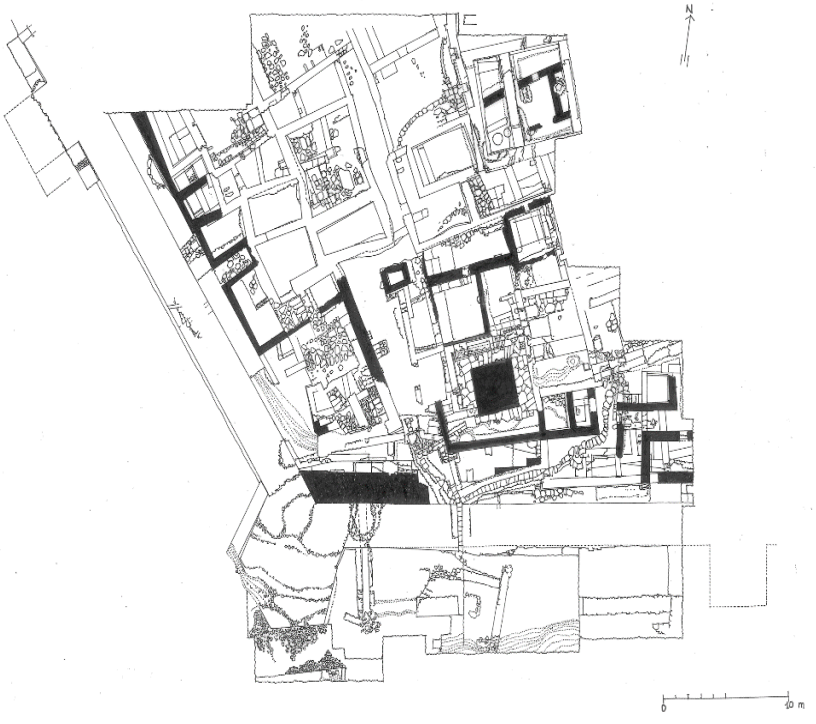

Fig. 6 –Trench BKG 4-5, Period V-VI (Macrophase 4)

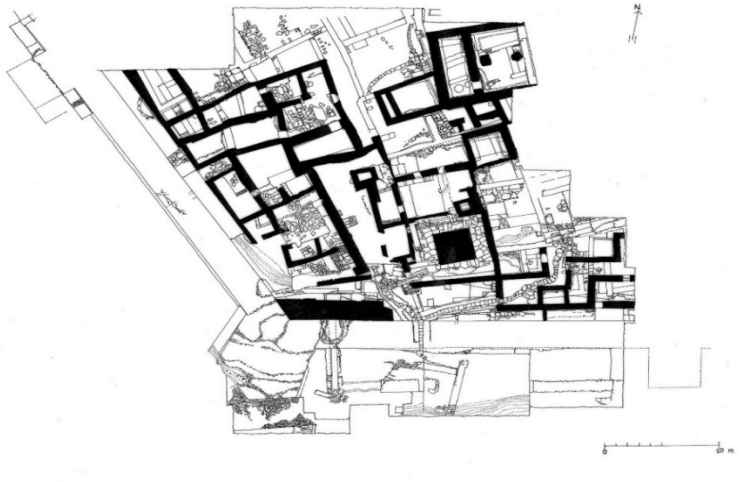

Fig. 7 –Trench BKG 4-5, Period VII (Macrophase 5a)
[N.B.: The former staircase to the bastion functions only for the vaulted drainage channel]

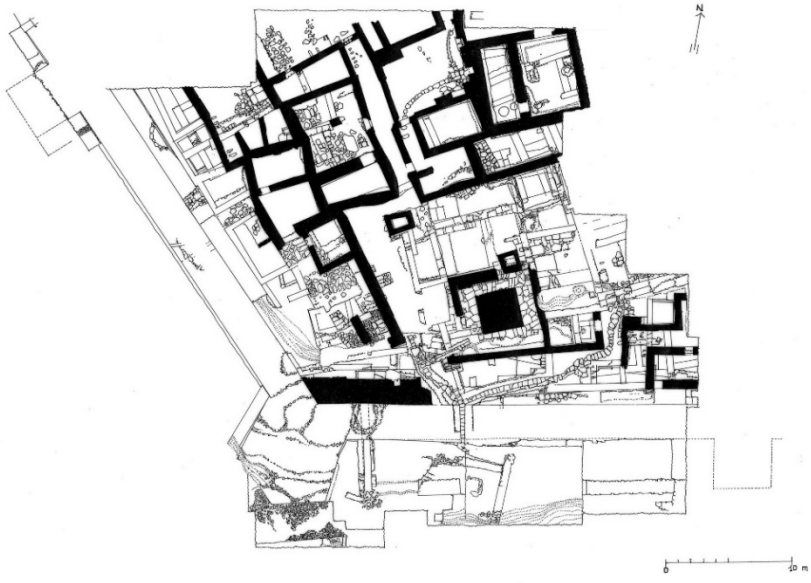

Fig. 8 –Trench BKG 4-5, Period VIII (Macrophase 5b))
[N.B.: The former staircase to the bastion functions only for the vaulted drainage channel].

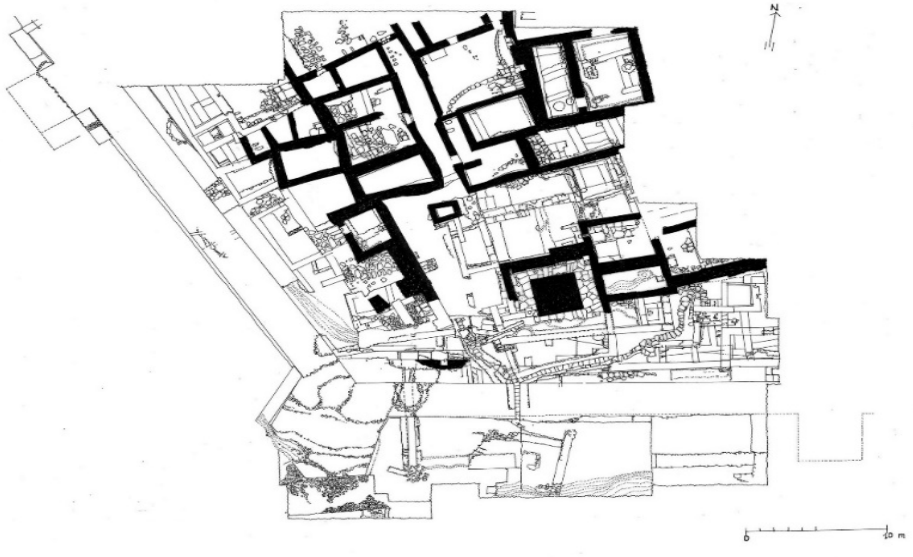

Fig. 9 –Trench BKG 4-5, Period IX (Macrophase 5b)

Fig. 10 – Axonometric restitution of the SW quarters of the cityin Period VIII (Macrophase 5b)
(Trenches BKG-4-5, 11 and 12), (Drawings by F. Mortore

Correlated Cultural Sequence (Macrophases)

The following notes resume the data already presented, integrated with the information coming from the recent excavations at BKG 11 and 12.

Macrophase 0

This Macrophase corresponds to period IV (1700-1400 BCE) of the Ghalegai sequence (see above fn. 3). Layers belonging to Macrophase 0 were spotted in Trenches BKG 3, BKG 4-5 (and BKG A-M, see Stacul 1987; 60-63), and exposed more extensively only in Trench BKG 12.

Macrophase 1

This Macrophase corresponds to periods V-VI (dated to 1200-900 BCE) of the Ghalegai sequence (see above fn. 3), and to period VII of the Ghalegai sequence (now dated to 1200-800 BCE, see Vidale, Micheli and Olivieri eds. 2016). These layers were located in all trenches (including BKG A-M, see Stacul 1987; 60-63), but extensively revealed only in Trench BKG 12. The Macrophase is subdivided into Macrophase 1a (= period V of the Ghalegai sequence?), 1b (= period VI-VII, do.), and 1c (= period VIII, do.?) [1].

Macrophase 2

Revealed only in Trenches BKG L and M in 1985 (Stacul and Filigenzi 1985) and in BKG 11 and 12 in 2016 (see fn. 3 above). Although it may be tentatively recognised also in some layers of BKG 4-5 (e.g. loci 413, 441-444, 452, 457 and 459), Macrophase 2 corresponds to a very little known chronological horizon, situated between the end of the late Protohistory and the construction of the Defensive Wall. It shows a sequence of material associated with Achaemenian and Mauryan cultural phases (i.e. from 6th-5th to 3rd century BCE; see Olivieri and Iori 2019 [in press]). The Macrophase is subdivided into Macrophase 2a1 (pre-Achaemenid), 2a2 (Achaemenid acculturation phase), and 2b (localization phase/Mauryan).

Macrophase 3

It includes the phases linked to the construction and the maintenance of the defensive structures of the city; this Macrophase is dated to between the 3rd

[1] Inside the area of the later city, we found evidence (Autumn 2017) of a stretch of a massive mud and stone defensive rampart (Macrophase 1b). The wall (preserved c. 1.5 m. height and more than 3.5 m wide), of which we exposed part of the upper surface and the inner side, is oriented North-South. It was basically a massive rampart made of thick layers of rammed earth with inclined pebble-masonry facing, plastered with thick layers of purified clay. The wall collapsed at least one time and the inner face was rebuilt. The upper surface was equipped with a wooden palisade, as at least two post-holes survived in the final collapse of the rampart. The difference in level between the inner floor of the rampart and the floors of the outer structures 50 meters away is just 1.50 m., which pictures a settlement lying on an almost flat surface. Overall, the information available allow to profile in Macrophase 1b the existence of a large settlement, which, including the acropolis, was larger than the future Early-Historic city, 15 to 20 hectares, surrounding an inner stronghold, probably 5 to 7 meters wide, connected to the acropolis. Outside the settlement, there was an extensive coeval graveyard, at least 15 hectares.

century BCE (C14 datings + later Indo-Greek coin assemblage + C14 = Macrophase 3a) and the 1st century BCE (Saka/Parthian coin assemblage + C14) (= Periods III and IV, Phases 3 and 4 in BKG 4-5; Periods I, II, III and IV in BKG 1; Periods IIA, IIB and III; Phase 1a in BKG 3) (=Macrophase 3b). It includes also the reconstruction of some bastions of the city Wall, probably damaged by one of the frequent earthquakes that hit the region (mid-1st century BCE-mid 1st century CE, Saka/Parthian coin assemblage).

Periods/Phases	Macrophases	punch-marked local Indian	Indo-Greek	Saka/ Parthian	early Kushan	Kushan	later
BKG 4-5 (after McDowall and Callieri 2004)							
Period VI	4	-	-	-	-	-	-
Period V-Phase 5		-	1	6	16		-
Period IV-Phase 4	3	-	1	10	-	-	-
Period III		1	4	-	-	-	-
BKG 11 and 12 (after Iori, Olivieri and Afridi 2015, Olivieri and Iori, forth.[a], Olivieri et al., forth.)							
Period VI	4	-	-	6	5		-
Period V		-	-	6	1		-
Period IV	3	1	-	1	-	-	-
Period III		2	4	-	-	-	-
Period IIB	2	1	-	-	-	-	-
BKG 3 (after McDowall and Callieri 2004)							
Period IVA-Phase 2a	4	-	-	2	1		-
Period III-Phase 1a	3	-	-	-	-	-	-
Period IIB		-	-	-	-	-	-
Period IIA		-		-	-	-	-
BKG 1 (ibid.)							
Period VI	4	-	-	-	-	-	-
Period V		-	-	2	-	-	-
Period IV		-	1	-	-	-	-
Period III	3	-	-	-	-	-	-
Period II		-	-	-	-	-	-
Period I		-	-	-	-	-	-
Total		5	11	33	23		0

Table 1 - List of identified coins per Period-Phase/Macrophase (a)
Preliminary data (updated 2016)

A first massive quake occurred in the first half of the 1st century CE. The event was followed by a series of repairing works carried out all along the Defensive Wall and marked by the partial reconstruction of the bastions that were provided with escarpments (Olivieri 2015) [1]. Macrophase 3a is subdivided into 3a1 (Graeco-Bactrian acculturation phase), 3a2 (early Indo-Greek acculturation phase), 3a3 and 3a4 (mature Indo-Greek = construction of the Defensive Wall; conventional date = c. 150 BCE).

Macrophase 4

It contains layers dated between the 1st and the 2nd century CE (early-mature Kushan coin assemblage) (=Periods V and VI, Phases 5 and 6 in BKG 11 and 4-5; = Periods V, VI and VII in BKG 1; Periods IVA and Phases 1b and 2a in BKG 3).

The Macrophase corresponds to the height of the development period of the ancient city. It also witnesses the creation of the small Buddhist sacred area within the city walls (BKG 4-5). In this macro-Period it is also possible to observe the progressive loss of function by the Defensive Wall, which tends to become a simple revetment wall for the layers inside the city. It is likely that, as proposed in the past (e.g. Olivieri, Vidale et al. 2006: 135), the end of the defence is possibly associated with the total demilitarization of the region as a result of the so-called *pax kushanica* (Olivieri et al. 2006: 135).

Periods/Phases	Macro	earlier	Kushan	late	Kushano-	sub	other	later

[1] Interesting evidence about organization and functions of the extramural area during the Saka/Parthian period comes from Trench BKG 12E located in the area outside the bastion close to the SW corner of the Defensive Wall (Period IV, Phase 3). In the phase related to the 1st century BCE, besides the reconstruction of the bastion, which had partially collapsed after a natural event, some additional structures were built in order both to reinforce the stability of the bastion (i.e. an escarpment), and to facilitate the run-off of rainwater from the area close to the Wall down to the ditch. Once this opera of reinforcement and prevention was completed, further efforts were directed towards the construction of a pit-well and related structures. The presence of an external pit-well clearly connected with the urban center raises some issues. A possible explanation for the location of the pit-well in the outer area could well be the presence of a city gate in the immediate surroundings. Certainly not a main gateway, but possibly a secondary gate nearby, which may to some extent be compared to the function of the so-called 'water-gates'. The latter were meant to allow water to be drawn in security, and have been hypothesized at Sirkap (see Olivieri 2015, Iori, Olivieri and Afridi 2016).

	phases			Kushan	Sasanian	Kushan		
	BKG 11 and 12 (after Olivieri et al. 2014, Olivieri et al., forth.)							
Period X	6	1	3	11	1	10		1
Period IX		-	1	13	7	15	1*	-
Period VIII	5	3	15	15	32	7	-	
Period VII		1	7	7	-	-	-	-
	BKG 4-5 (after McDowall and Callieri 2004)							
Period X	6	-	-	-	-	-	-	-
Period IX	5	-	-	3	-	-	-	-
Period VIII		1	12	12	6	6	-	-
Periods VII		-	8	4	4	5	-	-
	BKG 3 (ibid.)							
Period IVB-Phase 2b	5	-	-	11	14	-	-	-
Phase 2A2		-	-	8	-	-	-	-
	BKG 1 (ibid.)							
Period X	7	-	-	-	-	-	-	1
Period IX		-	-	-	-	-	-	-
Period VIII	5	-	-	-	-	1	-	-
Period VII		1	-	-	-	-	-	-
Total		7	46	84	64	42	1	2

*Table 2 - List of identified coins per Period-Phase/Macrophase (b). (N.B.: * is Western Ksatrapas?)*
Preliminary data (updated 2018)

Macrophase 5

It represents the last ancient living phase (= Periods VII and VIII in BKG 11; = Periods VII-IX in BKG 4-5; = Period VII in BKG 1, Periods IVB and V, and Phases 2b, and 3 in BKG 3). In this phase the process of functional modification of the outer Wall is fully completed and the creation of structures allowing an easier passage to the inner areas (Period 4b of BKG 3 and Phase 8 of BKG 4-5) may be observed. The layers belonging to this Macrophase are dated on the basis of C14 analysis to the second half of the 3rd century CE (late Kushan/Kushano-Sasanian coin assemblage) (Olivieri et al. 2014, Olivieri 2015; see also Jongeward, Cribb and Donovan 2014). The archaeological data seem clearly to indicate that both Period VII and VIII of BKG 4-5 (and BKG 11) were marked by destructive seismic events. The second one was eventually fatal, as the structures hit by the earthquake were left in ruins and the area abandoned. In fact, the end of this phase at the same time marks the abandonment of the town.

In Macrophase 5 the SW quarter of the city was divided into 11 single floor dwelling units of different sizes (from 300 to 700 square metres), always arranged around a central courtyard, sometimes provided with domestic worship areas. The blocks were served by a network of communicating streets, while the main street runned *intra muros* along the western section of the walls.

Dwelling unit B has an open courtyard flanked by a continuous low bench characterized on one side (North) by the presence of three votive niches. In one of them Buddhist steles were found in situ, together with a statuette in the round depicting a kneeling man carrying a lamp holder. An open raised shrine runs along the entire western side in communication with the courtyard through two short staircases. In front of the main niche an altar with ex voto was uncovered (including a laminated armour bracelet) and a large stone basin of the 'alms bowl' type. On the lateral benches numerous fragments of shell and luxury pottery bracelets were found, both materials deliberately broken. The complex is defined as “Sacred Building B”.

A few metres northward, some weeks ago, excavation revealed a second building (defined as “Temple B”) very similar to the previous one and datable to the same chronological horizon. The two buildings are linked and interconnected through a raised corridor. Temple B features a raised rectangular paved space closed on three sides and open to the North where at least three quadrangular bases were originally meant to support huge wooden pillars. Although only three

bases have been discovered (we are close to the northern limit of the trench), it is highly possible that the building featured a 4-pillar or 4-column façade in view of the discovery of a rough altar right in the lower space between the second and third base. A flight of steps at the southern end of the platform gave access to a lower open area that featured a rectangular tank. Close to the tank, a distiller was documented in situ, while two fire-places were documented a few steps from the central altar (Olivieri 2012 [2017], Moscatelli, Olivieri and Ali Shah 2016).

Dwelling unit D has a central courtyard yet used as a cooking area, but housing a small Buddhist shrine, in the collapse debris of which decorative sculpture materials were found. The corridor leading to the courtyard from the main street, yielded, among other material (jars and millstones along the sides), a small stele depicting an unknown bearded male deity sitting in European style holding a chalice and a goat's head as attributes. The stele was found inside a small stone cyst beside a fireplace.

Dwelling unit K has an alignment that is different from the others and may be linked to the original alignment of the Period V and VI structures (Phase 4). The layout is particularly interesting as it consists of a rectangular enclosure around a rectangular building in the same axis made up of a courtyard and with a distyle building open to the North. In front of the latter, in the courtyard, stands a small shrine the interior of which still houses a miniature stupa. Also here numerous ex-voto were found, in particular, horse figurines originally with (now missing) riders and lions. The distyle building (defined as "Temple K"), has an open antecella with traces of continued combustion on the clay floor, an adjacent cell and a side corridor leading to a rear chamber or *thesauron* (that can be accessed also via the cell), in which a deposit of valuable objects, no doubt donations, was discovered. The latter include intact pottery (belonging to the three classes documented in Building B), a glass ampulla imported from the West and a precious elephant's tusk. Temple K, of which earlier examples may be found in the Central Asian area, displays clear similarity with the temple of Mohra Maliaran in Taxila. Ample traces of two successive earthquakes in the space of less than 50-70 years have been clearly documented as 3rd century CE stratigraphy. This fact, alongside the political upheaval represented by the collapse of the Kushana empire, eventually led the to city being abandoned. The urban elites compromised with the Kushana system of local alliances, or the new families ruling the city during the early Kushano-Sasanian period, would probably have had less financial power, or interest, regarding the maintenance of the complex metropolitan system. A complex series of events eventually led the

urban elites to abandon the city when it was already partly in ruins at the very beginning of the 4th century CE. When the city was just a field of ruins, it was re-occupied and transformed into a sort of slums by non-urban or low-class settlers (C14-dated to the early years of the 4th century CE) [1].

Macrophase 6

We know that after Macrophase 5 the settlement was reduced to occupying the foot of the acropolis, where the occupation sequence (without urban features) continues uninterrupted until Shahi times (BKG 2). We know very little about the central part of the ancient town, which is not available for excavation. According to the available data, the abandoned area corresponds (a) to the area within a distance of about 150 m from the Defensive Wall, and (b) to the acropolis. If the settlement was reduced to the central and E quarters, we may infer that the town lost its urban features and was reduced to nothing more than a small mansion settlement, and that the number of inhabitants drastically decreased [2].

It represents an early and short post-abandonment occupational phase (=Periods IX and X in BKG 11; = Period X in BKG 4-5; =Phase 4 in BKG 3). It was documented only in the SW sectors of the ancient town, as the last phase of organized re-use of the site when the town was already in ruins (C14 chronology: beginning 4th century CE) (Olivieri et al. 2014, Olivieri 2012). From the material cultural point of view Macrophase 6 can be considered as a continuation of Macrophase 5.

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[1] See Olivieri 2012, Cupitò and Olivieri 2013, Olivieri et al. 2014.

[2] There must have been political and natural reasons for the sudden decline and abandonment of the ancient town towards the end of the 3rd century CE (Olivieri 2012). Besides two massive earthquakes in the space of about half a century, the collapse of the Kushan empire and the rise of the Sasanians may be viewed in a broader perspective, as brilliantly described by G. Verardi (2011): from the contemporary collapse of the Buddhist "open society" politically supported by the Kushans in India, to the collapse of the Han dynasty in China (221 CE), to the crisis of the Roman Empire aggravated by the St Cyprian plague (251-266 CE). "By that time [mid-3rd century CE], we observe a change in the Indian landscape, namely, a rapid process of de-urbanisation. It is every archaeologist's experience that even in the case of continuous human occupation, post-Kuṣāṇa levels display much poorer building techniques and reuse of earlier building material. A great number of small and large towns were abandoned in the third century, and in certain areas, as is shown by territorial surveys, the collapse of the whole network of roads and small settlements, which had been kept functioning by Buddhist monasteries, is observable." (Verardi 2011: 106).

Macrophases 7-8

These correspond respectively to the post-urban phases. Unfortunately, agricultural levelling, scattered spoliation pits, as well as the effectively limited number of structures and materials found, do not allow of a more detailed dating or periodization.

The above-described sequence is illustrated in the following Table 3. This shows the concordance between Trenches BKG 1, 3, 4-5 (lower city) and BKG 7, 8 and 9 (hill-top). Chronology, when in bold, refers to AMS-C14 calibrated data.

[LMO]

<table>
<tr><th rowspan="2">Cultural phase</th><th colspan="6">Lower Town</th><th rowspan="2">Macro-events</th><th colspan="3">Acropolis</th><th rowspan="2">Macro-events</th><th rowspan="2">Relative Chronology
Absolute Chronology
Coin assemblage</th></tr>
<tr><th>BKG 4-5</th><th>BKG 11</th><th>BKG 4-5 outside the urban Wall BKG 12</th><th>BKG 1</th><th>BKG 3 outside the urban Wall</th><th>BKG 3</th><th>BKG 7</th><th>BKG 9</th><th>BKG 8 outside the Wall</th></tr>
<tr><td></td><td colspan="5" rowspan="4"></td><td>Per. VII</td><td>Ph. 5</td><td rowspan="4">From 16th century Pashtun village; early-20th century thana (check-post in BKG 10). Dardic settlement (clan of Baira or Baria) abandoned in 16th century.

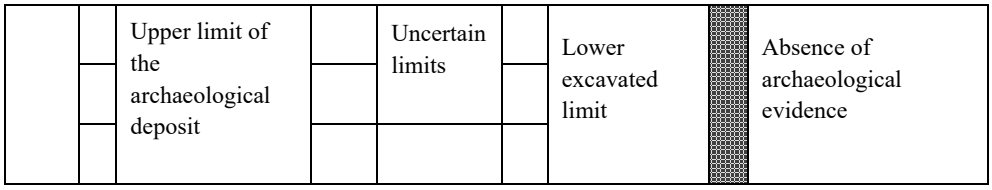
At least from 13th century Islamic occupation and graveyard.</td><td></td><td></td><td>Per. VII</td><td>Abandonment phase. Sporadic human presence</td><td>16th-early 20th CE</td></tr>
<tr><td rowspan="3">9</td><td rowspan="3"></td><td rowspan="3">Ph. 4</td><td>Per. VII</td><td rowspan="2">Per. VIII</td><td>Per. VI</td><td rowspan="3">Earthquake. Destruction of the Temple. Construction of a Ghaznavid and successors (Timurid?) fortified outpost</td><td>13th-15th CE</td></tr>
<tr><td>Per. VI</td><td></td><td>Per. VII</td><td>Per. V</td><td>11th-12th CE
Ghaznavid</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Per. V</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2">Re-occupation of the terraces for the building of a Brahmanic Temple (BKG 6)</td><td>7th-9th CE
Shahi</td></tr>
</table>

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology Absolute Chronology Coin assemblage
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall		
				Per. X							Abandonment phase	
7				Per. IX			Up-hill fortified settlement (Dardic?) (unexcavated)				Construction of a turreted Sacred Building (BKG 2)	**5th-7th CE**
		Per. X										
6	Per. X	Per. IX			Per. V	Ph. 3	Temporary non-urban re-occupation				Fortified dwellings	**4th CE** Kushano-Sasanian; sub-Kushan
	Per. IX	Per. VIIIb						Per. IV	Per. VI	Per. IV		
5b	Per. VIII	Per. VIIIa	Ph. 8	Per. VII	Per. IVB	Ph. 2b	Earthquake. Abandonment of the drainage system				Abandonment phase. Sporadic human presence	**3rd CE (second half)** Kushano-Sasanian; sub-Kushan;
5a	Per. VII	Per. VII	Ph. 7		Per. IVB	Ph. 2b	Earthquake. Reconstruction		Per. V			**3rd CE (first half)** late Kushan
4	Per. VI	Per. VI	Ph. 6	Per. VI	Per. IVA	Ph. 2b	Intense building activity Abandonment of the Defensive Wall.	Per. III			Demolition of the Defensive Wall and construction of a substructed terrace. Buddhist sacred area	2nd CE Kushan
	Per. V	Per. V	Ph. 5	Per. V		Ph. 1b	Initial abandonment of the Defensive Wall.		Per. IV			1st-2nd CE Early Kushan

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology Absolute Chronology Coin assemblage
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall		
3b	Per. IV	Per. IIIB	Ph. 4	Per. IV	Per. III	Ph. 1a	Earthquake. Retrofitting of the Defensive Wall	Per. II	Per. III	Per. III	Acropolis Defensive Wall	1st BCE-1st CE Saka/Parthian
3a4	Per. III	Per. IIIA4	Ph. 3	Per. III	Per. III		Fortified urban phase. Demolition of the previous structures and stratigraphy for the construction of the urban Defensive Wall					end-2nd BCE Indo-Greek Local Coins
3a3		Per. IIIA3		Per. II	Per. IIB							
				Per. I	Per. IIA							
3a2		Per. IIIA2					Urban occupation phase. Probably fortified (traces of earthen rampart and moat/ditch)					
3a1		Per. IIIA1										mid-3rd – early-2nd BCE
2b		Per. IIB	Ph. 2b									end-4th - mid-3rd BCE Mauryan
2a2		Per. IIA					Urban occupation phases					5th - mid-4th BCE
2a1												6th-5th BCE
1c	Per. II (?)	Per. IC			Per. I		Final collapse and abandonment of the fortified cluster	Per. IB	Per. II	Per. II	Settlement	Iron Age = period VIII Ghalegai

Cultural phase	Lower Town						Macro-events	Acropolis			Macro-events	Relative Chronology Absolute Chronology Coin assemblage
	BKG 4-5	BKG 11	BKG 4-5 outside the urban Wall BKG 12	BKG 1	BKG 3 outside the urban Wall	BKG 3		BKG 7	BKG 9	BKG 8 outside the Wall		
												sequence?
1b		Per IB	Ph. 1b (only in BKG 12)				Settlement/ Reconstruction of the fortified inner cluster/ Graveyard					**Iron Age = period VII Ghalegai sequence (1000-800 BCE)**
1a		Per. IA	**Ph. 1a** (only in BKG 12)				Settlement/ Fortified inner cluster/ Graveyard				Settlement	Late Bronze-Iron Age = periods V -VI Ghalegai sequence (end-2nd /Beginning-1st Millennia BCE)
0	Per. I (?)		Ph. 0 (only in BKG 12)		Per. 0		Settlement	Per. IA	Per. I	Per. I	Settlement	Chalcolithic = period IV Ghalegai sequence (1700-1400 BCE)

Table 3 - Concordance table between Periods-Phases/Macrophases of BKG 1, 3, 4-5, 11 and 12 (lower area), and BKG 7, 8 and 9 (hill top)



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Preliminary Report
Excavation of the Buddhist Stupa at Ban Faqiran-Islamabad

Abdul Ghafoor Lone

Introduction of the Site

The archaeological remains of Ban Faqiran are situated on the top of Southern Margalla spur of Murree hills, with an average height of 850 meters from sea level.[1] The Margalla spur divides the two famous valleys of Taxila and Soan of Pothohar region. The archaeological complex of Ban Faqiran actually consists of a Buddhist Stupa of 2nd-5th Century CE and a mosque with a large water reservoir of 17th century located now in the modern capital city territory of Islamabad, in the Soan Valley of Pothohar region.[2] Islamabad region is one of the oldest living inhabitants in the world (Dani 1999:102). Islamabad has the complete sequence and archaeological findings of Stone Age life showing a continuity of man in this region from the early Stone Age. Islamabad is one of the largest planned capital cities of the twentieth century. This city located on the Pothohar Plateau of the Punjab province, is also considered to be one of the earliest sites of human settlement in the region. Keeping in view of its rich archaeological significance we cannot confine the Archaeological potential of Islamabad within present territory. These two valleys, namely, Taxila Valley and Soan Valley, in the last six decades, has proved their archaeological potentials, where a number of sensational discoveries have opened a new vista in the relics of prehistory to Buddhist historical period of the region.

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1. Archaeological complex of *Ban Faqiran*, Islamabad, is at the crossed roads on one of the ancient routes, connecting the Taxila Valley with the Pothohar plateau through natural passage formed by hill torrents of Margalla mighty hills. The given name, "*Ban Faqiran*" is derived from local vernacular; "*ban" (*reservoir) *and "faqiran" (*saints). Ban Faqiran stands for a reservoir dedicated to saints.

2. The Pothohar Plateau (Punjabi: پوٹھوار, Urdu: سطح مرتفع پوٹھوہار; alternatively, spelled Potohar or Pothwar, is a plateau in the north eastern Pakistan, forming the northern part of Punjab.

The Haro river of Taxila valley, one of the tributaries of the Indus river, with a small but quit fertile land, explains eloquently why people lived here for several millennia, developing and enriching their culture, from Neolithic period as indicated by Saria Khola, to the 56 Buddhist stupas and settlement sites ranging from 6th century B.C to 8th century CE While the Soan Valley of Pothohar region, where the site of Ban Faqiran and the modern capital city of Pakistan, Islamabad is located, is indeed among the regions with the most ancient remains of a distinctive variety of anthropoid ape like creature, the so called Ramapithecus, as common ancestor of all the fossil species of mankind and ourselves. Jaws and teeth of Ramapithecus have been found in the sites ranging from China to Kenya, with the largest collection coming from the Pothohar region of Pakistan. These fossils range in age from about 8 million years to the older African finds, by Leaky and others, dated at 14 million.[1]

The earliest stone tool found in the river Soan valley termed as Soan industries belong to the chopper types and pebble tools discovered by De Terra and Peterson in 1930, Archaeological Mission of UK in the late 50s and Drummond in 1962 found tools of early Acheulean culture of about 2 million years. These all evidences indicate that the river Soan Valley rank as one of the cradles of human abode, which was inhabited for length of periods, first by the Ramapithecus, and then by the Homehabilis or man of the Neanderthal type and now by Homo Sapiens or modern man. Therefore, the river Soan Valley of Pothohar of Pakistan takes its place as one of the most ancient hearths of human culture.[2]

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[1]. The first find of Ramapithecus remains in Pothohar region of Pakistan was made in 1910 (Pilgrim) in Siwalik hill formation of Pothohar, named as Dryopithecus Panjabicus. In 1934, G.E Lewis of Yale University found some other remains of the creature and assigned the name of Ramapithecus brevirostris. Later on, some other remains were found and named as Bramapathicus and Sivapithicus Indicus. In 1960, Elwryn Simons restudied all these bone remains mentioned above and concluded that all these remains belong to the genus Ramapithecus Panjabicus and may be considered one of the links in the chain of man's descent. In the absence of more substantial finds of fossil ape creature or the so-called ape man or the Homohabilis erectus in the Pothohar region of Pakistan, we are thrown back on the evidence of ancient stone implements. However, we are also well supplied with genuine evidence of the ancient Stone Age (Palaeolothic) stone tools in the river valley of Soan of Photohar.

[2]. The famous American anthropologist, Movius classified the tools recovered from the site of Morga near Attock Oil Refinery, as choppers and chopping tools and added them to what De Terra has called pre Soan tools. The earliest stone tools used by man of old age in this region some 2,000,000 years ago, have been discovered

Prehistoric and Historic Profile of the Islamabad Valley

Islamabad is a newly established capital city of Pakistan, yet it has had a long and enriched history going back to prehistoric time. In 1960, Islamabad was partially open land attractive for the establishment of new capital of country.[1] On its Northern and Western sides spread out the mighty hill of Margalla (correctly Mar-i-Qila) the exact translation of Sanskrit word Taxila, the oldest capital of the region which the Aryans called Gandhara (Dani 1999: 99).[2] The historians and archaeologists, traced historical background of the district Rawalpindi and Islamabad, back to the Palaeolithic period, an age whose existence has been estimated to the fabulous period of around two million years before present (Ashraf M. & Ghani-ur-Rehman 2010:52).

The Soan River terraces have produced Palaeolithic material belonging to all the three periods; the lower Palaeolithic, the middle Palaeolithic and later or upper Palaeolithic and sequence continues right up into the microlithic period. [3] The oldest tools of Palaeolithic age have been discovered from the sites of Rawat, Morgah, Sohan and on the bank of the Soan River. All the finds were studied in great detail by De Terra and Paterson and thus the antiquity of Islamabad area has been extended up to the lower Pleistocene period of geology

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along the course of the river Soan near Rawat (John, Elden-1968:6-19). The discovery of fossil remains of jaw belonging to Sivapithecus punjabicus by the geological team led by Piblean in the Potwar (Pothohar) Plateau dating back to 14 to 18 million years ago, has provided an opportunity to the researchers for further discoverers of the bones of Australopithecus, the earliest human.

1 . On 14 August 1947 two independent countries created: India, with its existing imperial capital in New Delhi designed by Sir Edwin Lutyens in 1911; and Pakistan, opting for the port city of Karachi as its national capital. Shortly after their independence and within a few years of each other, the three countries set about building a new capital city-Islamabad and Dhaka as the national capitals of East and West Pakistan. Islamabad is the first planned city of its kind in Pakistan and also very different from the existing cities. Constantin Doxiadis, whose master plan for the city was approved in 1960, based it on his idea of dynapolis - a city endlessly expanding in a linear fan shape from an initial fixed point. It includes Islamabad, the capital territory and covers an area of 1,165 Km^2 of which 906 km^2 is Islamabad proper. Population of proper Islamabad is 2,001,579, Rural 991747 and Urban 1009832 (6^{th} Census 2017).

2 . Correctly Takashasila, meaning “Hill capital of the Serpent king, Taksha”.

3 . Soan means “Golden”.

(ibid:102). In 1987-90, Prof. Dr. Muhammad Salim, reported, four early Stone Age sites in the Potwar (Pothohar) (Salim 1990:59). It reveals that this region was home to people who settled on the banks of the Soan River and developed small communities in the region at around 3000 B.C(Ashfaque & Saleem 1987:1). Evidence of the earliest cultural stage at Sarai Khola (Period-I) seems to be peculiar to the Potwar (Pothohar) Plateau (Halim 1972:126). In Rawat, near Islamabad research work was focused on several issues, of which the first was the search for further artifacts from the two million years horizon (Allchin & Dennell 1989:5). There were some caves of Upper Palaeolithic and Neolithic period, also reported at Jori Rajgan in Islamabad (Kakepoto 2006:128).[1]

Rawalpindi District and Islamabad, a transitional region between the highlands of Swat, Kashmir and Hazara and the alluvial plains of the Punjab, has played a very key and significant role in human history of this region since remote antiquity (Ashraf M. & Ghani ur Rehman 2009:1).[2] In 1971, Prof. A.H. Dani identified Barr-i-Imam as a location of a Buddhist site (Dani 1999:99). The archaeological ruins found on the sites of today Islamabad and Rawalpindi, confirms the existence of Buddhist remains contemporary to Taxila but less notable than its neighbourhood (Ashraf M. & Ghani ur Rehman 2010:3). Later the region became an early settlement of the Aryan community. The region has witnessed the arrival of several major powers here (Sharif 1986:36). Worth mentioning among them were Iranians, Greek, Scythian. Parthian, Kushan,

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[1]. In-depth studies of Paleolithic sites in Soan Valley and adjoining parts of Potwar plateau had already been made during 1930s by Helmut de Terra and Paterson (1939), and Paterson and Drummond (1962). The systematic study of the Palaeolithic age of the Potwar (Pothohar) was conducted by De Terra and Peterson on the basis of short season of survey in 1933. Few specific surveys carried out in Soan Valley by British Archaeological Mission in late fifties. Survey was followed by the Italian Mission to Northern Area of Pakistan, led by Paolo Graziosi (1964). American Archaeological mission led by Eldond O. Jonson from Minnesota University also carried out a survey of Palaeolithic sites in Rawalpindi-Islamabad, 1964. Prof. V.A Ranov a well-known Paleolithic specialist and head of the Scientific Institute of Archaeology at Dushanbe, Tajikistan visited these caves while visiting Soan Valley and Rohri hills and suggested its affinities with Mousterian tools.

[2]. The Master Plan for Islamabad was prepared in 1960 by considering Islamabad as a part of a large metropolitan area by integrating the city of Rawalpindi as a twin city. These two cities were considered highly dependent on each other in overall urban development. However, the original Master Plan covering the city of Rawalpindi was not put into practice.

Shahis, White Huns and Mughals (Bahadar 2002:24).[1] They used this corridor through various routes of Rawalpindi-Islamabad on their way to invade the rest of the Indian subcontinent. Archaeological excavations revealed an enriched long story of neighboring ancient city of Taxila from mid fourth millennium B.C. to the Islamic period (Halim 1994:6, Dani 2000:2). Presence of the earliest agrarian society is well attested at Sarai Khola (Ashraf 2006:200).

Dani referred Tarlai Kalan, another archaeological site to 7th to 10th century C.E. (Kakepoto 2006:136). In 1973, Federal Department of Archaeology and Museums led by Mr. Ahmed Nabi Khan, carried out pioneer archaeological survey, with the objectives of documentation of prehistoric sites especially, after the discovery of Neolithic sites of Saria Khola in Taxila Valley (Gulzar Muhammad Khan 88:284). The Period-I and Period-II at Sarai Khola (Neolithic and Kot Dijian settlements) yielded an important archaeological material which greatly helped in reconstructing settlement pattern of people from 3100 BCE to 2400 BCE (ibid:278). Federal Department of Archaeology and Museums also carried out exploration in Margalla Hills in 1986, right from Nicolson monuments to Shah Allah Ditta caves, led by Gulzar Muhammad Khan (Late), the then curator of Taxila Museum; he reported the remains of a Buddhist stupa complex at Mari and Baoli near Kanthala. In 2003, on the proposal of Capital Development Authority- Islamabad, Taxila Institute of Asian Civilizations, Quaid i Azam University Islamabad, carried out a comprehensive survey of Baithak Baba Farid, located at Zero Point and on the basis of surface study, recommended the site belongs to 10th century CE (Kakepoto 2006:136). This survey was amid to take steps ahead to explore, potential sites of Margalla Hills in order to focus all unidentified potential sites from the extensions of Taxila western appendage to the eastern appendages connecting the Murree hills (DOAM 2009). In 2008-09, Prof. Muhammad Ashraf Khan, Taxila Institute of

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[1]. It was famous British archaeologist Alexander Cunningham who correctly recognized the ruins as those of the ancient Takshasila or Taxila of the classic writers. Settled life in the Taxila valley started around the fourth millennium BCE. The remains of the Takshakas of bronze age (6th-2nd millennium B.C) have been found at the bottom of the Hathial mound on the bank of Tamra nala, at the edge of Hathial spur about half a mile to the northeast of Taxila museum. Hathial period II bridged the gap from 10th -9th century BCE to 8th-7th century BCE and provided new evidence of Gandhara Grave `settlement in Taxila valley. Since 1912-13, the large-scale scattered remains of the ancient Taxila, once the capital of ancient Gandhara, became the focus of the western archaeologist interested in Greek and Buddhist research and study.

Asian Civilizations, Quaid-i-Azam University Islamabad, carried out another comprehensive survey of selected areas in Islamabad and Rawalpindi (Ashraf. M & Ghani ur Rehman-2009:1). Islamabad is, still lacking a detailed scientific archaeological survey to identify, to protect cultural heritage of Islamabad and pin point the endangered sites.[1]

Present excavation at the Buddhist site of Ban Faqiran, has been undertaken by the Federal Department of Department of Archaeology and Museums (DOAM), Government of Pakistan, with a clear aim to reveal the principal structures of Buddhist stupa and mosque. In this connection field operation, at the archaeological site of Ban Faqiran was started in August 2015. With the grace of Almighty Allah and support of its dedicated, committed potential and energetic professionals, excavation and conservation at Ban Faqiran was completed in February 2016. The vertical-cum-Horizontal digging on the site has brought to light remarkable and impressive remains of a Buddhist stupa of well measured flight of steps and a mosque. Renowned scholar and historian, late Prof. Ahmed Hassan Dani, identified Ban Faqiran site, a Buddhist stupa and he conjectured the nearby water reservoir, as the location of the Buddhist monastery. He further narrated that, in old days, the nearby caves of Shah Allah Ditta, located 2 kilometer in the northeast of the stupa, were inhabited by Buddhist monks. Near the water spring, there is a series of caves, which were artificially brushed up and used by the Buddhist monks in the early centuries of Christian era. Now-a-days, caves are reused by local inhabitants and nothing has been remained of old shrines. These caves are very famous among the dwellers of the area because of the beautiful natural environment around them and shape of rock and centuries old running sacred water spring. After the decline of Buddhist cult, these caves were abandoned and occupied by Brahman community of the than Shah Allah Ditta village. Remains of water channels and large water reservoir of Mughal era still, exist in Shah Allah Ditta Village.

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[1]. In 2016-17, Federal Department of Archaeology and Museums started archaeological survey in Islamabad and Syed Mehmoodul Hassan Assistant Director is conducting the same. Besides this Federal Department of Archaeology and Museums protected two archaeological sites, Shah Allah Ditta Caves and Ban Faqiran Stupa and Mosque, under the antiquity act of 1975. Prior to this, Department of Archaeology and Museums protected two forts, namely Rawat Fort and Pharwala Fort in Islamabad. Hence Federal department of Archaeology and Museums has protected four historical site-monuments in the capital of Pakistan, besides Saria Khurboza (presently located in Islamabad Capital Territory) had been protected by Punjab Government.

Treasure hunters and illegal diggers caused considerable damages to the archaeological remains in the said caves. The water reservoir of famous Shah Allah Ditta caves has undergone inappropriate kind of conservation and repairs in past, which has damaged the authenticity of this historical monument.

In the year 2006, consequent upon the repeated reports of vandalism by the treasure hunters, in the form of illegal diggings in search of priceless objects of Buddhist site at Ban Faqiran Islamabad, Dr. Fazal Dad Kakar, former Director General, Department of Archaeology and Museums, former Director Taxila Institute of Asian Civilizations, Quaid-i-Azam University Islamabad. Prof. Dr. M. Ashraf Khan along with Syed Mahmmod-ul-Hassan, the then Assistant Curator, Taxila Museum visited the site to ascertain its cultural assets**.** After devolution of the Ministry of Culture, under 18th constitutional amendment 2010, newly established Ministry of Capital Administration and Development Division, requested that Director General, Department of Archaeology and Museums-Islamabad should initiate an archaeological operation in Islamabad**.** Several meetings were held with the members of Capital Development Authority and Evacuee Trust Property Board to formulate modalities before initiating archaeological excavation at Ban Faqiran Stupa and the mosque. For archaeological excavation, conservation and research, a comprehensive project proposal was submitted by Department of Archaeology and Museums to the Capital Development Authority, but due to reasons best known to CDA relevant quarters, said project could not be materialized.[1]

Members of the Capital Citizens Committee had shown concerns about the danger to the Shah Allah Ditta Caves and Sadhu ka Bagh, ancient and historical sites of Islamabad. They informed CDA Chairperson after noticing suspicious activities near the heritage site of Shah Allah Ditta caves. In 2011, committee requested to the Department of Archaeology and Museums to protect

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1. In 2011-12, Capital Development Authority (CDA) formed a nine-member committee to ensure preservation of centuries old archaeological sites within the capital city. The team comprised CDA officials as wells as officials from other relevant departments. The committee extended technical support to the CDA for preservation of Sadhu ka Baagh, Shah Allah Ditta Caves and other historic sites. It was decided that in total, the CDA would preserve 150 historical-archaeological sites within Islamabad Capital Territory (ICT). CDA carried out some development work at the Rock Shelter commonly known as Lizard Rock along the Shahrah-e-Kashmir in Sector G-13.

the caves from influential private land developer's mafia in the area. It is also indispensable to mention that rapid developments and constructions in capital territory, not only endangered the natural environment but also archaeological sites are under direct threat of land grabbers, constructors and illegal treasure hunters. Capital Development Authority is lacking a comprehensive plan of archaeological survey in Islamabad.

Financial support by National Fund for Cultural Heritage (NFCH)

In April 2015, the Board of Governors, National Fund for Cultural Heritage under the chairmanship of Mr. Pervaiz Rashid, the former Federal Minister for Information Broadcasting and National Heritage, with the full support of members of Board of Governors, allocated a sum of two million for the archaeological investigation, conservation at Ban Faqiran Stupa in Islamabad. The task was successfully completed in February 2016, with the remarkable discovery of Buddhist stupa and rare antiquities.

Presumptions

Before the regular archaeological excavations at Ban Faqiran, the visible remains of a Buddhist stupa, water reservoir and a small mosque has, urged to assume that the complex belongs to 2nd to 5th century C.E. However, the remains of mosque were supposed to be of Gaznavid's period. After the decline of Buddhist era in the region, Shah Allah Ditta caves were occupied by the Brahman community of the Shah Allah Ditta village. However, presence of ruins of Mughal era, in the village of Shah Allah Ditta, also confirms the Muslim occupation in late period.[1] In year 1947, consequent upon the partition of India, Hindus community abandoned Shah Allah Ditta village, resultantly a Muslim family occupied the caves. The caves are property of the Evacuee Property Trust Board. Department of Archaeology and Museums, Islamabad protected ancient remains of the Buddhist Stupa, Ban Faqiran, Mosque, water reservoir and the

[1]. There are possibilities that during Mughal period these caves were also in use of Muslim community. Such hypothesis needs an archaeological investigation of the Shah Allah Ditta caves.

ancient caves of Shah Allah Ditta village, under the preview of Antiquities Act of 1975.[1]

Objectives of the project

Primary objectives of the project were,

I. To explore, excavate and preserve Buddhist site of Ban Faqiran.
II. To reconstruct the ancient cultural profile of the area.
III. To establish antiquity of the Islamabad Capital Territory.
IV. To add the discovered cultural material at the display in Islamabad museum.
V. To provide training opportunities to students of Archaeology and anthropology research.
VI. To promote research on cultural heritage and tourism.
VII. To promote soft image of the country at national and international level by investigating cultural heritage of the area.
VIII. To publish the excavation report.

With the grace of Almighty Allah most of the key objectives of the project were successfully achieved during the activity. Even though daily journey to the site exhausted not only human resources but also monetary resources. However major targets were achieved and during the course of excavation students from TIAC, Quaid-i-Azam University Islamabad were provided the opportunities of field training, demarcation of the site and pegging of the trenches, documentation of the antiquities and excavation. Antiquities discovered from the site, including rare coins are displayed at Islamabad Museum for researchers and visitors. A new chapter of research has been added in the history of Pakistan.

Physical Features

The site of Ban Faqiran occupies an ideal and picturesque location at, one of the hill tops of mighty Margalla range (Kakepoto 2006:137).[2] The

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[1]. Vide Notification published in; The Gazette of Pakistan S.R, O. 744(I) 2016 13 August 2016 and Vide Notification published in; The Gazette of Pakistan S.R, O. 452(I) 2016 31 May 2016

[2]. The name *Marikila* (Margalla) is found in the accounts of his book kitab-ul-Hind (Alberuni's India). Presently the hills are commonly known as Margalla which is

Buddhist monasteries in the region was not without reasons; indeed, the ancient settlers and Buddhist monks felt greatly attracted by the enchanting environment, most suitable for meditation to which they were so staunchly devoted. It is worth mentioning here that during the excavation at Ban Faqiran, presence of snakes and lot of insects in these hills was obvious. It was also common among the labour to discuss the bandits and robbers living in the locality. There are some stones age, cave sites exist in the northern flanking Margalla Range (Johnson Elden 1972:64). It is a range along with many valleys as well as high mountains.[1]

From the northern and the southern sides, the site is surrounded by the long wings of the Margalla hills. The site is divided in to two unequal and separated complexes, which are linked by a narrow and steep gorge. A chain of low-lying hills is running in the east and the west direction in the southern half of the valley. The hills are composed of soft limestone and occasionally *Kanjur stone,* a type of porous limestone, found in the beds of hill torrents and in the deep ravines. Archaeological remains are surrounded by the attractive as well as lush green pine and wild olive trees.

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extension of the lesser Himalayas, is located north of Islamabad, Pakistan. Margalla hills are also possessed sacred position in the time ancient serpent worshipers of this area. There are different legends describe the origin of the word 'Margalla'. According to the one of such legends, these hills have always been known as an abode of snakes. *Mar* means 'snake' in Persian *galla* means 'herd', therefore Margalla means a place with presence of a lot of snakes. According to the second legend, the word *'Margalla*' was derived from *Mar Galla*, meaning 'to strangulate'. *Mar* means 'hit' and *Galla* means 'neck'. It is believed that there were lots of Bandits and highway robbers who used these hills as a sanctuary and would strangle travellers in order to rob them. It has also been suggested that the name derived from Marikala, the Persian equivalent of Takshasila (Taxila).

1. Margalla Range has an area of 12,605 hectares. The hill range nestles between an elevation of 685 meters at the Western end and 1,604 meters on its east with average height of 1000 meters. Its highest peak is Tilla Charouni.

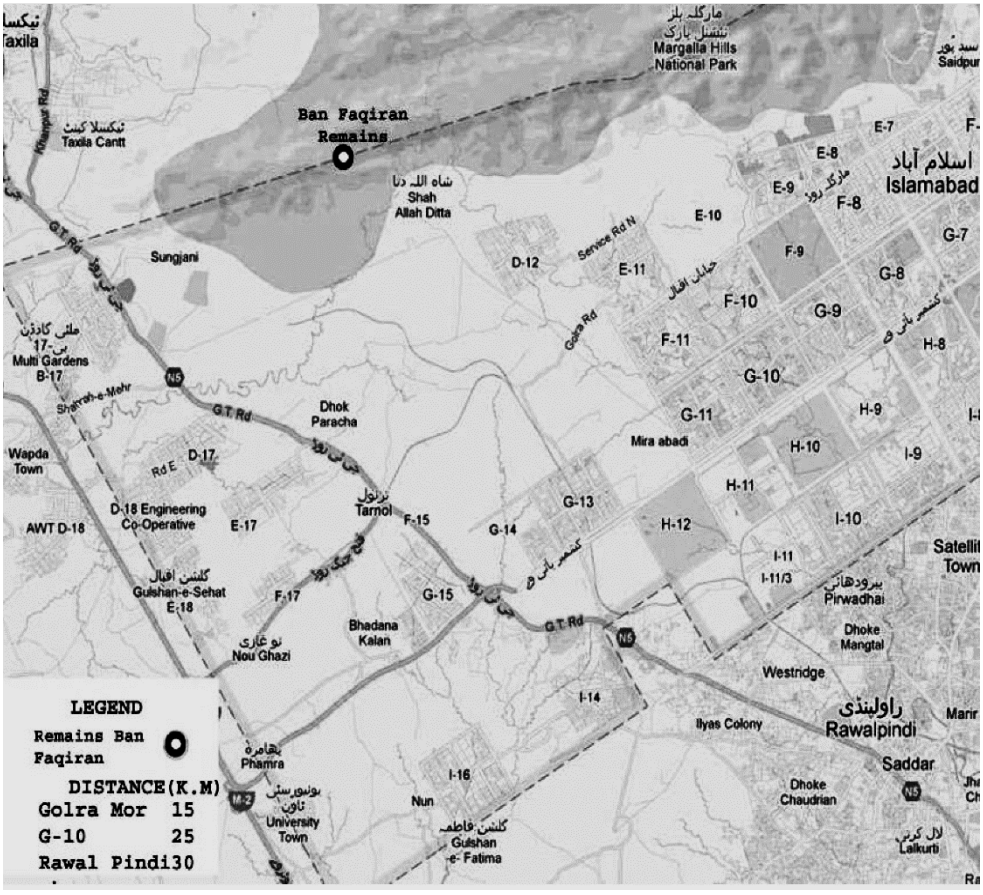

Fig.1 Location Map of Ban Faqiran Stupa and Mosque

Location

The Archaeological site locally known as Ban Faqiran is situated in the west of Islamabad, about 2 km in the southwest of Shah Allah Ditta Caves, in Shah Allah Ditta village, district Islamabad. [1] (Fig.1) Shah Allah Ditta village is approachable by two different roads, one from Golrah Sharif, located in E sector and another road is linking from D-12 to Shah Allah Ditta village. There are two different natural tracks leading to Margalla Mountain to access the site, one from

1. Khaya Ban-e- Iqbal, arises on the northeast side from the 4th Avenue (Nur Pur Shahan), runs between E and F sectors and ends at Service road West of F 11 and E 11 (Golra) sectors in the southeast. Margalla road starts from sector D 12 and runs across the Margalla to connect with Jabbri road near Khanpur. Grand Trunk road (GT road) passes through Margalla through Tarnol pass near Nicholson's obelisk.

the east through Shah Allah Ditta Village[1] and other from the west via Giri, Taxila. In the west of Shah Allah Ditta Caves, there is a private house of Haji Mustafa Khan, a landlord. In the north of his *dera* (House), a natural track, about two kilometers, is located in the jurisdiction of Capital Development Authority reserve forest, which leads to the site. In the south of private property of Haji Mustafa Khan, an under-construction road is alternative access, to reach the halfway of the site. But being a private property, visitors required the special permission of Haji Mustafa Khan. Private road of Haji Mustafa Khan and natural track of CDA (Forest) diverge after about a kilometer in the west. Remaining one-kilometer natural trail is narrow, uneven, continuously ascending, slippery and stony track.

We can divide archaeological remains of Ban Faqiran into two separate complexes. Upper complex consisting of a stupa, is falling between the coordinates Lat. 33° 43" 22′ N and Log. 72° 53" 51′ E. situated in the jurisdiction of the Islamabad territory (Pl.1-c). Geographically the lower complex falls within the Lat. 33°43" 25′ N and Long. 72° 53" 42′ East. The lower complex is located about 200 meters in the west of upper complex. Lower complex is consisting of the ruins of an old mosque and a large water reservoir. Lower complex falls in the jurisdiction of Punjab province. The remains of upper complex are dated back to the 2nd century C.E. and lower complex can be safely assigned the date of late Mughal era.

Present excavations, though limited both in time and space, have yielded remarkable and fruitful results in determining the chronology of the site. However, as a whole, the site appears to have added very little to the findings except the discovery of some rare coins. The results of present excavations, although confirming that there is an old mosque, still lack much in cultural material to prove its being the earliest mosque.

Excavation Plan

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1. The village is named after a Mughal period Dervish Shah Allah Ditta. The village is believed to be more than seven hundred years old and was used as route from Kabul to Gandharan city of Taxila by Alexander and Sher Shah Suri while Mughal rulers and other emperors often passed through while travelling from Afghanistan to the Hindustan. Archaeological evidence indicates that the caves were first used for meditation by Buddhist monks and later by Hindu sadhus before Muslim ascetics took over during the Mughal period.

The scientific archaeological excavation at Ban Faqiran was mostly carried out in the upper complex. Before initiating the excavation work, the whole complex was thoroughly surveyed, and considerable fragments of artifacts were accordingly collected and documented. In the first phase, it was necessary to remove the massive wild growth from the site. The horizontal excavation was started in the month of August 2015 and continued up to the end of February 2016. After completing all the initial surface study, the contour and grid maps were completed (Fig.2). The western axis of the grid was marked by the Alphabetical numbers from A to L and northern axis by numerical numbers 1 to 8, in the following order A1, A2, ----B1, B2, -----etc. Remains of upper complex are extending from south to north, covering an area of 80x40 meters and rise to an average height of four meter above from narrow gorge in the south, which links it with lower complex in the west. Upper complex was completely covered with wild growth, bushes and small trees.[1] After gridding and pegging of the site, in upper complex, mound was divided into 96 squares, measuring 10 x 10 meters. Ten squares were excavated completely in upper complex, while three squares were exposed in lower complex. Huge structural, remains and many fragments of small finds have also been unearthed. Base of square stupa is made of limestone. *Kanjur* stone is frequently used to construct the drum of stupa. Some patches of lime coating were found in situ. It was revealed that gravel mixed with lime was also used in the foundations. After removal of wild growth from the surface, the dilapidated condition of the stupa was exposed. Top structures and dome were completely collapsed. Main mound was already excavated by illegal diggers and treasure hunters. Robber's trenches were frequently carried out on the top of stupa. A long staircase, in the west, was badly damaged due to human vandalism and natural agents like rain and earthquakes. Sothern and the southwestern walls of the stupa were partially

1. The plant species on Margalla hills belong to various families of trees, shrubs, herbs, climbers, grasses and fodder crops. The vegetation of the southern slopes is deciduous and evergreen trees with most of flowering trees like Bauhinia variegata, Ficus carica, and trees like Pinus roxburghii, Quercus leucotrichophora. In the north stand pines, Eucalyptus, Peepal trees (Ficus religiosa), Paper Mulberry and groves of oak e.g silver oaks. Over the years, however, the hills have suffered considerably from illegal logging and wood collection used for cooking and heating. There are around 250 to 300 species of plants on the Margalla hills. As many as two third of them are used by the people for their medicinal effects to treat or cure various diseases. The Margalla Hills are home to various species of wildlife, including monkeys, exotic birds and carnivores such as the rare and presently endangered Margalla leopard.

removed by the illegal diggers, in quest of treasure inside the stupa. The eastern wall of the main square stupa was also found in spoiled condition; the northeastern corner was completely removed by illegal diggers and treasure hunters.

Structural Remains

Archaeological remains of Buddhist site Ban Faqiran are scattered in a large area. Remains of the site were divided into two separate complexes, here namely, Upper Complex and Lower Complex. Distance between both complexes is about 200 meters. Upper complex is spread over an area of about 80x40 meters. Remains of upper complex extend from the south to the north. Upper complex was further divided into three identical zones, i.e. the southern zone, the central zone and the northern zone. Lower complex is covering an area of 40x40 meters. Lower complex comprises of a mosque and a large open water reservoir.

During the course of excavation, in upper complex, structural remains of a Buddhist stupa along with a long staircase have been revealed in the southern zone. At the depth of less than a meter from the surface level, occupational floor level and walls of late period are also unearthed in northern zone (trench:C-5&7). During the excavations, scrape of unfinished chips of limestone and block of *kanjur* stone was found in northern zone. Evidences show that this zone was used as working space during the construction of the stupa**.** In the first phase, excavations were carried out in upper complex, in southern zone.

Ban Faqiran Buddhist stupa is perched on the top of a hill. A complete plan of, almost square shaped, stupa was exposed in the southern zone. Structural remains of the Buddhist stupa are extended in squares; I-5, I-6, I-7, I-8 & H-5.H-6, H-7, H-8. Due to damages caused by the illegal diggers and treasure hunters, most of small finds have been mixed and structure of the stupa was badly destroyed. The massive exposed structure of stupa was entirely tilted in all cardinal directions. Ban Faqiran stupa along with a long staircase, covering an area of 10.15x26.20 meters (including staircase measuring 16.20x2.60 meters), is comparatively a large Buddhist stupa.[1] In the west, flight of staircase, is leading up to the drum. The steps of staircase are almost collapsed or destroyed, except a few foundation stones. Limestone masonry of square stupa and rectangular staircase is semi-ashlar and diaper. Base of the stupa is constructed with large

[1] . Presently Ban Faqiran Buddhist stupa is the largest one recovered in Islamabad.

boulders of limestone, in semi-ashlar and diaper masonry and drum is constructed with dressed *kanjur* stones. *Bhallar* stupa in Taxila is also erected, after partial leveling of a natural rock. Masonry style of Ban Faqiran Stupa is contemporary to the monastic complexes of *Dharmarajika, Bhamala, Bhallar, Giri, Mora Muradu, Pipplan* and *Julian*, in the *Taxila* valley as well as *Takht-e-Bhai, Khyber Pakhtunkhwa* and *Barikot-Swat* Valley (Pakistan Archaeology 2015:145). Keeping in view the masonry style, adopted at stupa, it is suggested that the structure of stupa belongs to the 2nd to 5th century C.E.

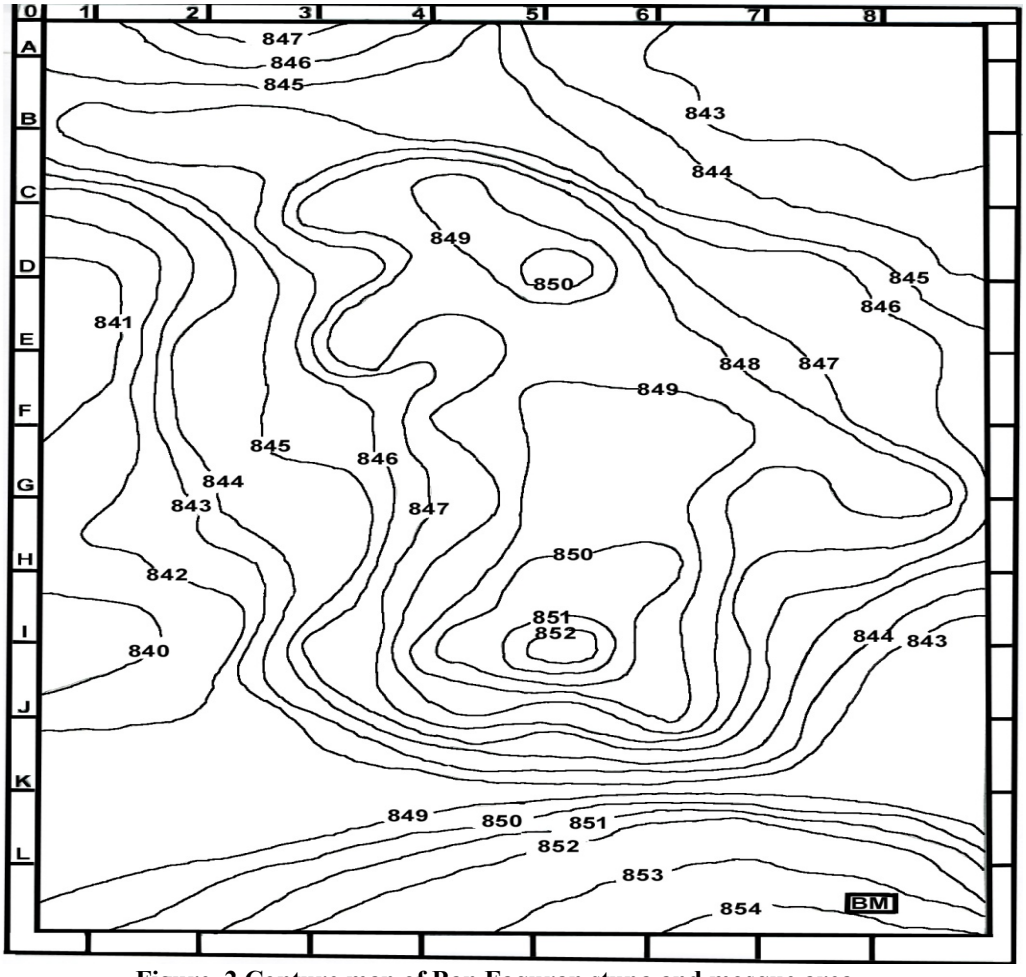

Figure. 2 Conture map of Ban Faquran stupa and mosque area

Significant features of Ban Faqiran stupa are helpful to determine its chronology. Limestone masonry of Ban Faqiran stupa is contemporary to the

stupas in Taxila valley.[1] Surviving patches of lime plaster confirm that entire stupa was plastered with thick layer of lime coating. On the top surface of the base of the stupa, vertical chips of limestone, were inserted to fill the space among stones slabs and boulders. Such type of insertion of stone chips resembles to the floor masonry of contemporary monasteries at Badalpur-Taxila valley, Takht-e-Bhai in Mardan (KPK) and Barikot in Swat.

In second phase, besides the main stupa, which was completely exposed, four trenches were laid in upper complex, two in the central zone and two in northern zone. The structures located in the north of main stupa were badly damaged and missing. The western part of stupa, consisting of staircase, was badly spoiled by illegal diggers and also damaged by natural disasters, probably time to time earthquakes and heavy rains. Few courses of limestone were found in the northern zone. The pot shards found from this zone, show fine fabric and thin texture of red ware. These are made of well levigated clay. Mostly surface of pot shards has red slip. From the northern zone, fragments of thick and incised terracotta pottery has been frequently discovered. Similar pot shards were also discovered from the Lower Complex.

I. Southern Zone.

In all, eight trenches were opened in the southern zone. In most of these trenches, horizontal excavations were carried out. The vertical excavations were carried out only in one trench (I-7), in a bid to establish complete chronological sequence and stratigraphy of the upper complex. Trench No. I-7 was chosen where digging had been conducted from top and down to the natural rock. Both vertical and horizontal excavations produced very significant and productive results. The vertical digging from top to bottom up to the natural rock revealed two layers as briefly mentioned in the preceding pages, on the basis of cultural material and structural remains. Top of the rock was partially leveled by Buddhist to construct the square stupa.[2] Base of the square stupa and staircase was constructed in accordance with available natural rock in the area.

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[1] . Dharmarajika, Bhamala, Bhallar, Giri, Mora Muradu, Pipplan and Julian

[2]. The hills rock formations are 40 million years old, and fossils of marine life abound, indicating that the Margalla Hills were at one time under the sea. According to the research carried out by scientists and archaeologists of the project "Post-Earthquake Explorations of Human Remains in Margalla Hills", the formation of the Margalla

Upper Complex (Stupa)

Upper Complex of Ban Faqiran was further divided into three zones:

I. Southern Zone
II. Central Zone
III. Northern Zone

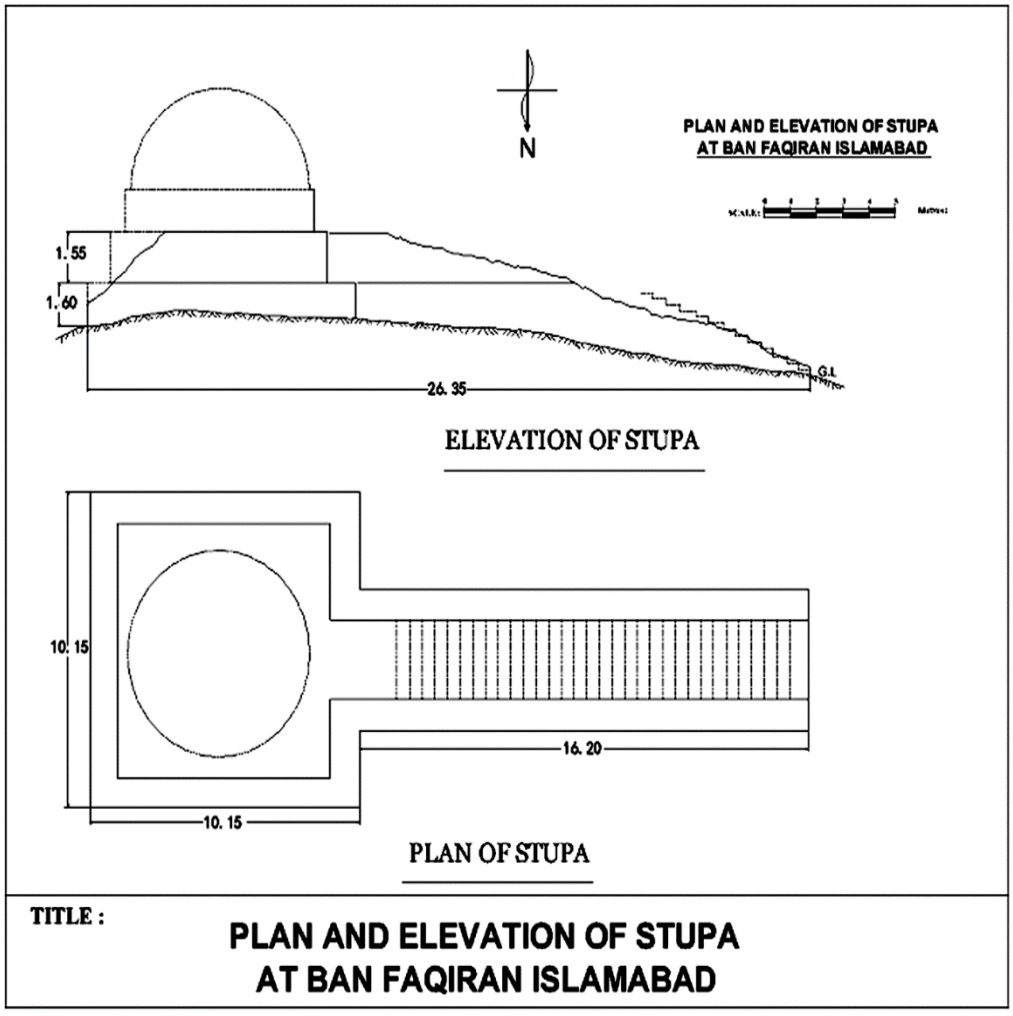

Figure.3 Plan and Elevation of Stupa at Ban Faqrian, Islamabad

Hills dates to the Miocene epoch. The dominant limestone of the Margalla is mixed with sandstone and occasional minor beds of shale.

Trench: H-5 to H-8

Trenches H-5, H-6, H-7, H-8 measuring each 10x10 meters were laid respectively in the northeast, north and northwest of stupa. Selected area was entirely covered with wild growth, small tree and fallen debris of Buddhist stupa**.** After removal of wild growth and debris, archaeological excavations started in the squares H-5 to H-8 **(Pl.2,3,4-b)**. During the removal of wild growth and excavations, various dangerous insects including baby snakes were frequently reported from the trenches. Unfortunately the northeastern corner of the stupa was badly damaged and removed by illegal diggers to access the centre of stupa in quest of relics **(Pls.2, 3,4-c)**. On the top of stupa, in square H-6, there is a pit measuring about 250x100 cm. dug by illegal diggers, up to natural rock. The pit was refilled after documentation.

Apparently, top courses of stupa were removed by illegal diggers. Blocks made of *kanjur*, boulders and chips of limestone were frequently found in the trenches under investigation. The northeastern wall of the stupa was comparatively intact and in adequate condition **(Pls.2,3,4-d)**. Masonry of limestone is semi-ashlars and diaper. The drum of stupa was made of *kanjur* stones. Northern wall of the drum of stupa was also badly damaged and sharply tilted to northward. Three vertical sunken grooves exposed, in northern wall of drum, measuring (20x11x160 cm) after an interval of 1.6 meter from the northwest and the northeast and one sunken groove, in centre, separated by a distance of 2.3 meter from both. These sunken grooves may be used for inserting the pilasters. Remarkable collection of antiquities was made in the outer part of the northern and the eastern section of stupa. Six copper coins, including one belonging to late Mughal period were discovered from the trenches under investigations. Four iron arrow heads were also found from the northeastern corner of main stupa.

Trench: I-5 to I-8

Trenches I-5, I-6, I-7, I-8 each measuring,10x10 meters, were laid down respectively in the southeast, the south and the southwest of stupa. Locale was entirely covered with wild growth. During the course of removal of wild growth and excavations, various kinds of dangerous insects, including baby snakes were frequently found in the trenches.

In the south, a narrow gorge, separates the upper complex and provided with a natural passage between Taxila and Islamabad.[1] Blocks of *Kanjur* stones, boulders of limestone and chips were frequently found in the southern part of stupa **(Pl.5-c)**. Base was provided with a layer of lime mixed with rubbles to strengthen the foundation against the steep in the south **(Pl.5-d).** Natural rock, partially, mixed formation of limestone and sedimentary rock, was to some extent leveled. Above the base of stupa, a drum, made of *kanjur* stone, was also unearthed but southeastern corner of stupa was completely missing **(Pl.6-c).** Base of Stupa was poorly tilted in the southeast **(Pl.6-d).**

Geologically sedimentary rock is not much compact and constant in nature. It looks that heavy structure of limestone and *kanjur* created extra load on the rock. Therefore, one of the causes of tilting of the stupa was the fragile nature of sedimentary rock. Limestone rock was also variable in structure and enough space and cracks developed which destabilized the foundation of stupa. The southwest portion of stupa was demolished by illegal diggers, inquest of relics to access the centre of stupa **(Pl.7-c).** Upper courses of stupa were also removed by illegal diggers. It was observed that large scale debris of boulders of limestone and blocks of *kanjur* stone occupied the trenches. In the extreme southwest, outer wall of leading staircase was exposed **(Pl.7-d).** Traces of lime plaster were also evidenced on the walls of stupa**.** Small quantity of pot shards were recovered around the stupa but not a single complete terra cotta pot or dish came in hand during the course of excavations.

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[1] There are a number of species of poisonous snakes in the area, including cobras, Russell's Vipers, kraits known in local parlance as the half-minute killer and Indian phython. The snakes hibernate in the winter months; but tread carefully in the hotter months and particularly the monsoon months, when snakes abound. While they are to be found mainly in and around the hills, occasionally an overgrown garden can prove the ideal home. High diversity of birds in the Margalla is due to the combination of many ecological components that together make it a unique location. 54 species of butterflies, 37 species of fish, 9 species of amphibians, 20 species of reptiles, 380 species of birds, 21 species of small mammals and 15 species of large mammals have so far been recorded. in Margalla Birds in the park include Himalayan griffon vulture, laggar falcon, peregrine falcon, kestrel, Indian sparrow hawk, Egyptian vulture, white cheeked bulbul, yellow vented bulbul, paradise flycatcher, black partridge, cheer pheasant, Khalij pheasant, golden oriole, spotted dove, collared dove, larks, shrikes, wheatears and Bantings.

II. **Central Zone**

Trench: G-7

Trench G-7 (10x10 m) falls in the northeast of stupa. Surface of the area was covered with wild growth and thorny bushes above the blackish soil. After removal of wild growth, archaeological excavation started in trench. Various precarious insects including, black spiders, baby snakes escaped, during the excavation. Partially trench is situated at a natural descent, towards the east. No structural remains discovered, apart from few terracotta fragments and two copper coins. Fragment of a door socket made of stone was also recovered from the same trench (Pl.11). Unusually a punched silver coin was also reported from surface which might be there because stupa was erected at the location which is still used as a short link passage to Shah Allah Ditta village Islamabad. Therefore, we cannot overthrow the possibility that it was there since long ago before the establishment of stupa in 2nd century C.E. and consequent upon the activities of illegal diggers in the past, it has been discovered from the surface.

Trench: F-6

Trench F-6 (10x10 m) is located in north of the central zone. Surface was covered with wild growth and thorny bushes. After removal of wild growth, archaeological excavation started in the trench. Northern part of the trench is located in a deep slope covered with blackish layer of soil. A copper coin, in much rusted condition was also found at the depth of 25 cm from surface, in same sloping area. No structural remains were discovered from the trench F-6.

III. **Northern Zone.**

Trench: C-5 & C-6

C-5 & C-6 trenches, measuring 10x10 meters each, are located in extreme north of the site. Surface was covered with wild growth, thorny bushes. After removal of wild growth, archaeological excavation started in the trenches. To some extent, Northern zone is located at a raised natural rock of limestone as compare to the central zone. There is a deep ditch in extreme north. Top of the trench was covered with unfinished

limestone. The noticeable feature of these trenches was the presence of occupation floor and coarse chips of limestone, which were frequently found from these trenches. Deposits of crushed *kanjur* stone, in shape of powder, were

also uncovered at floor level with the thickness of 5 to 10 cm. Approximated depth of trenches was up to 1.75 meters. The occupational level was not uniform and even. It seems that this area was used as a working space for chiseling the lime and *kanjur* stones during the construction of stupa but was later on, occupied by inhabitants of later period. Some incised pottery shards, of thick texture, were discovered from the areas under investigation. Comparable terra cotta pot shards were also recovered from lower complex, in and around the mosque and water reservoir.

Lower Complex:

Mosque and Water Reservoir

In December 2015, monitoring team headed by Prof. Dr. Muhammad Farooq Swati, member of the board of governors (NFCH) visited the site and suggested that lower complex may also be investigated for broader perspective of the site. Therefore, three trial trenches were also opened out in lower complex, including mosque and water reservoir.

Location: Lower complex is situated about 200 meters in the west of upper complex of Ban Faqiran Stupa. Towards the northwest, a narrow natural track is leading towards the Taxila Valley. Remains of the world heritage site Giri are located in the northwest of lower complex at the distance of about 2 kilometers.

Remains of a small mosque and a large water reservoir are situated in a rectangular plain, piece of land, extending east to west in lower complex. Numerous tiny pot shards were scattered in and around the structures of the mosque and water reservoir. Some of pot shards were thick in size and similar to the pot shards, frequently recovered from northern zone in upper complex. Lower complex, after gridding and pegging, divided into nine grids. The western axis was marked by the alphabetical numbers from A to C and northern axis by numerical numbers 1 to 3, in the following order A-1, A-2, A-3, B-1, B-2, B-3, C-1, C-2, C-3. Three trial trenches (Squares, A-1, C-1 and C-2), measuring 10x10 meters have been managed to expose the mosque and western corner of water reservoir, adjacent to mosque. All the three trenches, C-1 and C-2 laid in the southwest and trench A-1 in northwest of water reservoir.

Trench A1: Trench A-1, measuring 10x10 meters, was laid in northwest of the water reservoir. Surface of the trench was occupied with wild growth and

covered with small limestone, gravel, terra cotta granular pieces, pebbles and terra cotta shards. No structural remains were found in the trench. From surface, at the depth of about 70 cm a floor level was unrevealed. The pottery shards, recovered from this trench, were comparable and contemporary to the terracotta shards noticed in the northern zone of upper complex.

Trench C-1 & C-2

Mosque: The mosque of Ban Faqiran is situated in the extreme western edge of water reservoir. It had been constructed above parameter wall of water reservoir. Mosque was filled with the debris of terra cotta tiles, boulders of *kanjur* and limestone along with a modern concrete pillar thrown by miscreants. Inner sides, of walls of the mosque, were damaged by the green fungus. Wild growth covered the eastern and the southern walls of the mosque **(Pl.8-a&b)**. Two trenches C-1 and C-2 were laid in the southwest of water reservoir. Due to small size, mosque was completely exposed in trench C-1. Huge mud deposit, measuring of 1.20 meters (high), was drained by heavy rains, from the surrounded mountains. This mud deposit was retained, against the outside of southern wall of the mosque **(Pl.8-c&d)**. In front of the entrance of the mosque (westward), small piles of lime mortar, fragments of lime plaster and debris were frequently found **(Pl.8-e)**. Inside area of the mosque was carefully cleaned. At the depth of 10 cm, after removal of debris and lose soil deposits, a badly damaged plain floor of lime plaster was exposed.[1] The alignment of the northern wall of mosque and water reservoir is not symmetrical. This reveals that the mosque and water reservoir were not constructed simultaneously, and mosque was constructed very late then the water reservoir.

Simple structure of the mosque has been constructed with the combination of limestone and *kanjur* stone **(Pl.No.9. a to e).** Mortar used in the walls, is mixture of lime, granular limestone and tiny pieces of terra cotta. Mosque is almost square in shape. Slight difference of measurements of walls is noticeable. Length of the eastern wall from outside is 4.40 meter and from inside its length is 3.10 meter. Thickness of the eastern wall is maximum 1.30 meter. There is an arched entrance, in the eastern wall of mosque; measuring 190x77 cm. Apex of the arch has been collapsed. Arch is made of red terra cotta tiles. Length of western wall from outside is 4.32 meter and inside its length is 3.20

1. Material utilized, mixture of lime and sikri (powder-dust of crushed terra cotta burnt bricks)

meter. Thickness of the western wall is 1.12 meter. An alcove, measuring 175x35x10 cm. is surviving in the center of western wall. Length of the southern wall from outside is 4.15 meter and its length from inside is 2.96 meter. Thickness of the southern wall is 1.19 meter. The length of northern wall, from outside is 4.27 meter and from inside its length is 3.00 meter. Maximum thickness of the northern wall is 1.27 meter. From floor level existing, height of all four exposed walls is ranging from 1.70 m to 2 m. Northern wall, from outside, is 2.10-meter-high which is the maximum height of any of walls. Zone of transition has been created by providing squinches on four corners. Squinches are built of burnt bricks and coated with thin layer of lime plaster. Super structure above the squinches, comprising drum and dome has been collapsed. There were numerous, reddish and dark purple colour, rough terra cotta tiles, scattered in water reservoir and around the mosque. These tiles were probably used to construct the arches and dome of the mosque.[1]

Water Reservoir: This reservoir is named after Ban Faqiran. Large structure of water reservoir, made of limestone, more or less, is square. Inside, measurements of the walls of the water reservoir were found to some extent different. Length of the eastern wall is 23.90 meters. Length of western wall is 26.50 meters. Southern wall is 26.51 meters long and length of northern wall is 27.00 meters. Average thickness of the walls of water reservoir, is 60 cm and before excavation average depth of water reservoir was 10 cm to 164 cm. Top courses of limestone were restored time to time. Southwestern corner of water reservoir was filled with the debris fallen from the mosque. In square C-1 which was partially extended in water reservoir, up to the depth of 70 cm. debris were removed and the bed of natural rock was exposed. Lime mortar used for the construction of the walls. It is also reported by senior natives that in past, there was a lime floor, in the water reservoir and people utilized it for bathing as well as water storage for their grazing animals. During the excavations some evidences of such floor were noticed but could not expose in selective trenches in presentable condition. Levels of debris and soil deposits, settled inside water reservoir, were not uniform. Existing depth of reservoir is gradually increasing, from east to westward, up to maximum depth of 164 cm. This water reservoir needs complete investigation and restoration for future activities in the area. It is the only water reservoir available here to save rainy water. It is necessary to remove all the

1. Tiles founded are five different sizes of tiles , found at the lower complex: i.e. I. 16x23x4cm, II. 15x22x4cm, III. 14x20x3cm, IV. 13x6x2cm, V. 13.5x18x4cm.

fallen debris and clean soil deposits from the water reservoir for the preservation and restoration.

Minor Antiquities: Incised terracotta potshards, of thick texture and few painted with black motives on red slip, were found from these trenches. A copper coin of Government of Pakistan dated 1963 found at the depth of 30 cm, in the southeast (outside) of the entrance of the mosque.

Periodization and Stratigraphy of Ban Faqiran.

In order to establish a complete chronology of the site, a well documented cultural profile was maintained. During the present excavations, an area of 5x5 meters from the east to the west and the north to the south was selected (Upper Complex) for in-depth digging, located close to the base wall of stupa in the southeast. This trench was designated as I-7 **(Fig.4).** This section exposed up to the depth of about 3.30 meters from surface level up to the bottom, on the natural rock. In this square at least two occupation layers, representing two periods, from top to bottom, were identified. It was ensured at all stages of the excavations that no evidence, even of the minor nature, is missed from the course of recording. Stratigraphy of the square was maintained with great concern and every evidence of past was recorded and placed in proper context and cultural perspective. It revealed some important and useful information in the form of two observable occupational levels, representing two different periods from top to natural rock.

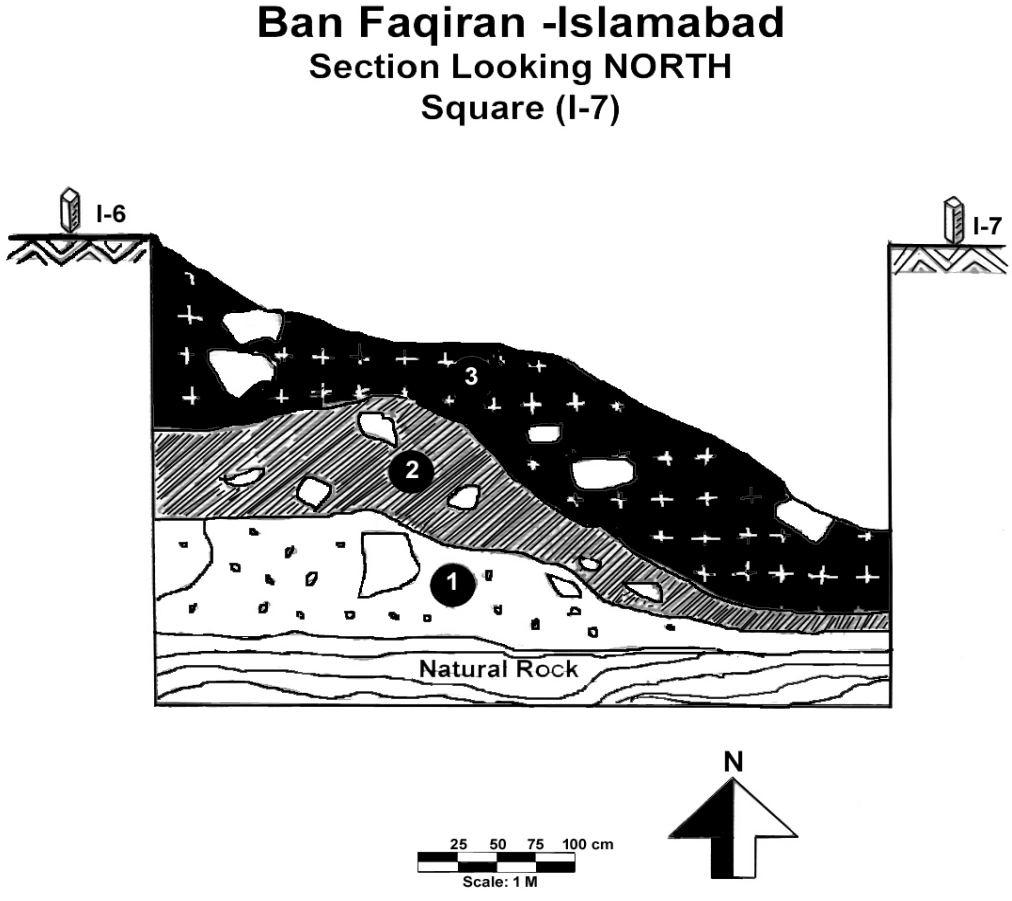

Figure 4 Showing stratigraphical section of the Ban Faqrian Stupa

The trench I-7, selected for deep digging was the highest point for vertical excavation. Top layer was partially disturbed. According to the initial surface study and information provided by local labours, the upper layer of mound, at some places, about 1 meters, had been removed by the treasure hunters. It is also learnt that, ruins of stone walls, in the central zone and the northern zone, were also removed by illegal diggers. The top of stupa, including dome has been completely removed by illegal diggers. Hence the complete evidence of detail stratigraphy is lacking, so we mainly relied on the floor level and the evidence of structural remains exposed in selected trenches. A large area of the site is still to be investigated but keeping in view the scarcity of funds,

team mainly focused on stupa which was since long, under the great threat of illegal diggers.

Layer. I. Bottom to upwards. Layer-I is the lowest one. It is varying from 20 to 100 centimeter in thickness. It comprised of light brown soil in colour and mixed with dominant lime, small river pebbles. However, no structural remains found in this layer (trench I-7). Layer No. I, is compact, mixed lime layer, extended against the walls and foundation of stupa. On the basis of stone masonry of stupa and antiquities discovered, we can assume that this layer was probably belonged to 2nd to 5th century C.E. Due to the frequent human vandalism, most of the evidence of the period has been disturbed.

Layer. II. The maximum thickness of layer-II was found about 80 cm. This layer is almost compact and brown in colour. Blocks of lime and *kanjur* stones, large stone boulders and pot shards have been noticed. Some rare finds including copper coins and arrow heads, made of iron also discovered from the layer-II. This layer belongs to late 17th -18th century C.E. The most interesting feature of this layer is, presence of fragments of stucco plaster. Most of the evidence of layer II also disturbed by illegal diggings.

Surface Layer. The layer in question is surface-top layer. The maximum thickness of this layer is 150 cm. It comprises of light brown colour, loose soil, mixed with pot shards and small river pebbles. Few lose lime boulders and dressed stones were also recovered from this layer. Largely this layer emerged because of the natural decay, collapse of the structures of stupa and activities of illegal diggers. The structural remains and associated material consisting; mostly a small number of pot shards, iron arrow heads and copper coins provided the ample evidences of different periods.

Period-I (2nd-5th century C.E)

The first occupation of period-I, topped the natural rock and was represented by thick accumulation of layer-I, starting from the bottom of the section at the depth of 3.3 meters, below the surface level. The total thickness of the deposit associated with this period was 180 cm. The material discovered from this layer including very few terra cotta pot shards. Some rare copper coins and iron arrow heads also discovered from the same period. This level indicates the earliest occupational level of site probably from 2nd to 5th century C.E.

Period-II (late 17th -18th century C.E)

The second period of the site is very interesting. It represented by layer No. II. According to available material discovered during the excavations, from the stupa area, in all probability it belongs to late 17th- 18th-century C.E. It is observed that during that period, after a long interval, upper complex was re-occupied by newcomers, probably by Muslims who also had established a small mosque in lower complex. They re-used the location of Buddhist stupa and built some rough structures in the northern zone. Structures of rough limestone masonry represent this phase of occupation. Small number of pot shards, bearing different shapes and features were also discovered. Due to human vandalism, most of evidence of period-II has been disturbed. Irregular structures of this period were identified in the northern zone. It appears that these structures were constructed on the site at very late period, perhaps about post Mughal era. The terracotta pot shards, a fragment of a glass bead and a rare copper coin, may be of post Mughal era, were also recovered from the period II.

ANTIQUITIES

During excavation at Buddhist site of Ban Faqiran, a reasonable quantity of antiquities has been discovered which has included fragments of terra cotta pottery, glass bead, stone pivot, arrow heads, copper and silver coins. These antiquities belong to different occupational levels, which were marked during excavation. Detail of some selected objects is given below.

Pottery (Terra Cotta)

Study of the pottery, discovered at site, is of great help to make certain the chronology of the site.[1] It also provides significant information about the inhabitants of area who used it and also reflects the everyday life of the period concerned. Excavations at Ban Faqiran site yielded small number of potshards. Majority of potshards are of pots, bowls, small pots, saucers, water pitchers, vessels, lids etc. The fragmentary pottery includes pieces of bowls with folded and featureless rims, with rounded base and out-curved rim, of different shapes and various sizes. Pottery is wheel made and represents thick and medium texture. All the pottery shows normally red or dull red wash, almost on the

[1] Bhir mound: The First city of Taxila (Excavation report 1998-2002) DOAM & NFCH, p-65

external surface and sometime interior sides. Most of the potshards are red, dull red and pale red ware.

Dull Red & Red Ware: Such ceramics recovered from layer-I and II at the depth of 3.3 meters from surface. Condition of most of the pot shards, is fragile. Among them most of the specimens are plain except few pot shards of red ware, which belong to Kushan period. While some pot shards have medium to thick textures, black core and mixed with pottery grits and sand ingredients. Besides, some pot shards show grooves on the external surface. All the pot shards of bowls, saucers, water pitcher and pan-dishes, are wheel made.

Decorative pottery: Some decorative pot shards have also been revealed from the current excavations at Ban Faqiran. The decoration is very simple and consists of fingertips and grooves. Some pot shards are painted with leaf design, in black colour. The painted decoration is black on sharp lustrous red slip. There is a pot shred also decorated with black, red orange colour, with lines on rim and neck. Motives designed with straw mostly noticed on the fragments of these dishes. These designs included free wavy line in circle; vertical slanting lines between incised circles are made with freehand.

Appliqué ware: A few fragments of pot shards, decorated with appliqué band, are also discovered from the layer-II.

A close study of the ceramics, recovered from Ban Faqiran, from all the periods refers that the pottery was brought from Taxila valley. It reveals that the pottery was made of clay obtained from the local sources which were found in Taxila valley. It varied in quality from fine, free from any impurities, to course with sand and grit etc. All the vessels were made of levigated clay. In case of thick texture pottery, clay has been mixed with shale, broken shards or sand and mica, etc. While for medium or small texture pottery, refined and pure clay has been used. Sometimes clay as a rule is mixed with a high percentage of sand and grit, which made the surface porous that helped in the process of evaporation which kept the liquid fresh and cool. It is very difficult for us to make precise chronology and periodization on the bases of stratigraphy and topography of site, because the illegal excavations as well as climatic changes and natural disaster disturbed the entire mound. Small number of pot shards has also been exposed. Textures of these pot shards are apparently being parts of large vessels with thick and medium sizes and shapes such as beaded flat and rounded bases. The clay in such cases appears to have been mixed with pottery bits shale and sand. This type of shards came from period-II. Discovered fragments of these pitchers have

medium to thick texture and fine fabric. All the discovered fragments of pitchers have different shapes of rims, such as everted rims, out curved rims and vertical rims. The everted rims and out curved rims are mostly plain or some time having light ridges or grooves or some kind of decoration on them. These rims are horizontally flattened and vertically thickened, obliquely everted and externally or internally thickened and plain. Besides, this, vertical rims are plain with the edge angularly flattened, grooved thickened and externally grooved. Few discovered fragments of terracotta pots were decorated with incised, embossed, appliqué and rustic designs other than mere horizontal grooved bands. Keeping in view material, design it may be assumed that the pottery discovered at site, was most probably brought from Taxila valley. Some important and dominant types and forms are described below;

Terra cotta-Bowl, Saucer,

During excavations a variety of shards of bowls and saucers, in red and dull red ware, of various shapes and sizes were discovered. A number of fragment of bowls have incised decorations, thin texture slightly everted and inverted rims and internally decorated with finger grooves. A few articulated rims of the bowls are slanting, incurving, inverted, everted and flaring. The incurving rims have thickened, grooved on both sides and their edge treated slanting, horizontal or plain.

1. BFI.1, Sq..I-5, Stratum–I, Size L:12.5 cm. Rim, broken into two fragments, slightly flared mouth, Good red pottery, well baked, reddish buff clay. Traces of lime on fragments. (comp. pl.122, no.31, Taxila by J.M, Vol.III). Pl.1, no.1

2. BFI.2, Sq. H-4., Stratum-II, Size L:10.5 cm. Rim, broken into two fragments, slightly flared mouth, high neck reddish buff clay. Traces of lime on fragments. (comp. pl.127, no.217, Taxila by J.M, Vol.III) Pl. 1, no.2

3. BFI.3, Sq. E-4., Stratum-II, Size L:9.5 cm. Fragment of a thick rim, Brownish clay mixed with husk everted rim. (com.pl.122, no.50 Taxila by J.M, Vol.III) Pl. 1, no.3

4. BFI.4, Sq. E-4., Stratum-II, Size L:14 cm. Rim: Three fragments of a thick rim, Brownish clay mixed with husk. Bands of liner

decoration around shoulder. (com.pl.122, no.30 Taxila by J.M, Vol.III) Pl. 1, no.4

5. BFI.5, Sq. C-5, Stratum-II, Size L:9 cm. Rim: Fragment of a thin saucer, reddish clay mixed with sand, traces of red wash on outer surface. (com.pl.124, no.96, Taxila by J.M, Vol.III). Pl.1, no.5

6. BFI.6, Sq. C-4., Stratum-II, Size L:22 cm. Rim: Six fragments of a thin saucer, Good red clay with red wash, slightly convex, angular beaded rim, shallow grooving round shoulder-neck reddish clay mixed with sand, traces of red wash on inner and outer surface. (com.pl.124 no.114, Taxila by J.M, Vol.III) Pl.1, no.6

7. BFI.7, Sq. C-5. Stratum-II, Size L: 6.2 cm. Rim: Fragment of a thick saucer, Good red clay with red wash, slightly convex, angular beaded rim, shallow grooving round shoulder-neck, and reddish clay mixed with sand, traces of red wash on inner and outer surface. (com.pl.124 no.114, Taxila by J.M, Vol.III). Pl. 1, no.7

8. BFI.8, Sq. C-4, Stratum-II, Size L:9 cm. Rim: Fragment of a pot of thick body, clay heavily mixed with sand and husk, red wash, angular rim, a rough grooving band round the neck, (com.pl.121 no.2. Taxila by J.M, Vol.III). Pl.1, no.8

9. BFI.9, Sq. A-1 (Mosque), Stratum-I, Size L:8 cm. Rim: Fragment of a pot of thick body, clay heavily mixed with sand and husk, Red clay with dull red wash. (comp. pl.124, no.98 Taxila by J.M, Vol.III). Pl. 1, no.9

10. BFI.10, Sq. G-5, Stratum-I, Diam.8 cm. Beaded base, Fragment of a pot, clay mixed with sand and husk, Red clay with dull red buff. Comp. (pl.123, no.83 Taxila by J.M, Vol.III). Pl.1, no.10

11. BFI. 11(Lower complex, Mosque, Sq. A-1I, Diam.:8 cm. Flat base, Fragment of a pot, clay mixed with sand, Red clay with dull red buff. (comp. pl.123, no.72 Taxila by J.M, Vol.III). Pl.1, no.11

12. BFI. 12, Sq. E-5, Stratum-I, Diam.:6 cm. Flat base, Fragment of a pot, clay mixed with sand, Red clay with dull red buff. (comp. pl.124, no.101. Taxila by J.M, Vol.III). Pl.1, no.12

13. BFI. 13 Sq. C-5, Stratum-I, Diam.:4.5 cm. Flat base, Fragment of a thick pot, clay mixed with sand, red clay with dull red buff. (com. pl.124, no.101. Taxila by J.M, Vol.III). Pl. 2, no.13

14. BFI. 14 Sq. C-1 (Lower complex, Mosque), Size L: 8 cm. Shoulder, Fragment of a pot, Squat elliptical shape, good red clay mixed with sand and mica, red clay with dull red buff. Two black painted bands on shoulder (comp. pl.123, no.49. Taxila by J.M, Vol.III). Pl. 2, no.14

15. BFI.15, Sq..I-5, Stratum–I, Diam.: 23.cm. Fragments of rim and shoulder, of an open mouthed. Water pitcher, broken into six pieces, slightly flared mouth, clay mixed with husk, bajri, roughly finished, burnt red on surface and grey in middle. Traces of lime. (comp. pl.122, no.34, Taxila by J.M, Vol.III). Pl.2, no.15

16. BFI.16, Sq..I-3, Stratum–I, Diam.: 23.cm. Fragments of rim and shoulder, of an open mouthed. water pitcher, broken into six pieces, slightly flared mouth, clay mixed with husk, bajri, roughly finished, burnt red on surface and grey in middle. Traces of lime. (comp. pl.122, no.34, Taxila by J.M, Vol.III). Pl.2, no.16

17. BFI.17, Sq..H-3, Stratum–I, Size.L:6 cm. Fragment of shoulder of a pot, clay mixed with husk, bajri, roughly finished, burnt red on surface, grey inside. Fragment is decorated with appliqué band. (comp. pl.131, a no.240, Taxila by J.M, Vol.III). Pl.2, no.17

18. BFI.18, Sq..A-1 (Lower complex, Mosque), Stratum–I, Size.L:6.5 cm. Fragment of shoulder of a heavy and thick body pot, well levigated clay mixed with sand, roughly finished, incised bands on outer surface. Inner sides showing parallel running lines, emerged while manufacturing incised lines on outer curve. Outer bent edge is decorated with incised leaning lines in a row on a grooved line. Pl. 2, no.18.

Terra cotta Bowl, Saucer,

A large variety potshard of bowls, saucers in red and dull red ware, of various shapes and sizes are found in the excavation. A few fragments of bowls have incised decorations, slightly everted and inverted rims and internally finger

grooves and thin texture. A few articulated rims of the bowls are sloping, incurving, inverted, everted and flaring. The incurving rims have thickened, grooved on the both sides and their edge treated slanting, horizontal or plain.

19. BFI.19, Sq. A-1 (Lower complex, Mosque), Size.L:8 cm. Fragment of a Saucer-dish of heavy and thick body, well levigated, clay mixed with sand and husk, roughly finished, incised bands on inner surface. Red wash. Between two parallel running lines, incised leaning lines, to right are decorated. Pl.2, no.19

20. BFI.20, Sq. C-1 (Lower complex, Mosque), Size. L. 8.5 cm. Fragment of a Saucer-dish of heavy and thick body, well levigated. Red wash, clay mixed with sand and husk, roughly finished, incised bands on inner surface. Between two parallel running lines, wavy line is incised to decorate. Pl.3, no.20.

21. BFI.21, Sq. C-1 (Lower complex, Mosque), Diam. 20 cm. Fragments (10 pieces) of a large Saucer-dish of thick body, well levigated, clay mixed with sand, Red wash. Incised bands on rim and inner surface. Of saucer. One wavy band on rim and two are incised inside, between two parallel running lines. Pl.3, no.21.

Painted Terracotta pots.

In addition, variety of incised pot shards, some shards of black painted terra cotta pots are also discovered. Mostly fragments are well levigated and clay mixed with sand and husk. Leafs were painted with black colour on the red glossing surface.

22. BFI.22, Sq. A-1 (Lower complex, Mosque), Size. 14.cm. Fragments (2 pieces) of a large pot, well levigated, and fired. Clay mixed with sand, applied with sharp red slip. Black painted floral design between bands on shoulder. Shards are badly damaged and chipped off.Pl.3, no.22.

23. BFI.23, Sq. A-1 (Lower complex, Mosque), Size. 30.cm. Fragments (7 pieces) of a large water pitcher. Clay mixed with heavy sand, with red buff. Black colour painted wide bands on shoulder. Shards are badly damaged. Pl.3, no.23.

Arrow Heads

During excavation, four arrow heads made of iron were discovered. All were discovered from square H-6 & H-7 in the east and the northeast of stupa. Arrow heads were intended for shafts made of reed, not of solid wood and were provided accordingly with long tangs instead of hollow sockets. Considerable length of solid shank intervening between the head and the tang, was found. There are different shapes and design of arrow heads, flat, with lozenge cross section, with triangular cross section, square cross section, conical and three bladed. In Sirkap Taxila, later shape arrow heads reported from Saka-Parthian period (1st century B.C and 1st century A.D). **(Pl-11, no.24-27)**

1. BFI.24, Sq..I-7, Stratum-II, L.6.8 cm (blade. 3.7 cm. Tang. 3.1 cm, Arrow-head with square cross-section. Single tang, (Comp. Taxila by J.M, Vol.II, Ch.27, XX,83, Vol.III, Pl.165, no.83) Pl.3.no.24.

2. BFI.25, Sq..I-7, Stratum-II, Size. L.4 cm (blade. 3.5 cm, Tang. 0.5 cm, Arrow-head with square cross-section. Pointed nose is bent, it may be because, shooter struck it with much power and speed against something more solid. Single, broken tang, (Comp. Taxila by J.M, Vol.II, Ch.27, XX,83, Vol.III, Pl.165, no.83) Pl.3, no.25

3. BFI.26, Sq. I-6, Stratum-II, Size. L.3 cm (blade. 2.5 cm, Tang. 0.5 cm, Arrow-head with triangular cross-section, round broken tang, Pl.3, no.26

4. BFI.27, Sq. I-6, Stratum-II, Size. L.5 cm (blade. 4 cm, Tang. 1 cm, Arrow-head with round cross-section. Triangular blades with long barbs, single, bent, round broken tang, (Comp. Taxila by J.M, Vol.II, Ch.27, XX,88, Vol.III, Pl.165, no.88) Pl.3, no.27

Glass Bead

From the upper complex, the northern zone of stupa area, a half fragment of glass bead was also discovered.

1. Fragment of a thick black yellowish colour glass bead with a perforation.

   BFI-28. Sq. C-5. Size. Dia.2 cm. Depth. 2.21m. **(Pl-11, no.28)**

Coins (Pl.12)

Coins are the most reliable and significant source of archaeology and chronology. Coins offer the most fundamental information in the chain of chronological sequence of events. In fact, coins are the back bone of the archaeology. Coins are helpful in working out broad brackets of chronology and in placing the bulk of finds in to some kind of tentative time scale. During the excavation at Ban Faqiran site, as many as 10 rare coins have been recovered from various layers and depths but only eight coins found in better condition. One punched mark coin was reported from the surface which could not be linked with the structures and other finds of the site. Taxila valley is located in the northwest the stupa. Author is optimistic that being a link passage in Most of the coins were founded on the first floor of the period-I. Some of the coins were badly corroded but after the chemical treatment most of the coins were able to recognize. Late-post Mughal copper coin is a rare find, however Dr. Joe Cribb, numismatist, British Museum K,[1] refers it an early 19th century Afghan coin. The reason for this singular scarcity of copper is the general use of other substances for petty currency in India (Stanley 1892: xc).

Coin No.1 (BFI-29) Indo-Scythian
Material: Copper
Size: Dia.19.95 mm
Locus. H-7
Layer: I (210 cm)
Obverse: King riding on horse to right
Reverse: Figure standing to left
Condition: Badly damaged by corrosion/rust

Coin No.2 (BFI-30) Kujula Kadiphises
Material: Copper
Size. Dia.17.50 mm
Locus. H-6
Layer. I (225 cm)
Condition. Badly damaged by corrosion-rust
Obverse. Bust of king to right
Reverse. Nike standing to left

Coin No.3 (BFI-31) Vima Kadiphises

[1] . Former numismatist , department of Coins and Medals British Museum

Material. Copper
Size. Dia. 30 mm
Locus. H-5
Layer. **I**
Obverse. King standing to his right.
Reverse. Bull
Condition. Slightly corrosion-rust on obverse

Obverse. King standing facing, sacrificing at fire altar at left, club, tamgha and axe head-shafted trident in fields, Greek legend around: BACIΛEYC BACIΛEWN CWTHP MEГAC OOHMO KAΔΦICHC-
Reserve. Siva standing facing, holding trident and deerskin, bull Nandi right behind, Kharoshti legend: *maharajasa rajadirajasa sarvaloga isvarasa mahisvarasa Vima Kathphishasa tratara*

Coin.No.4 (BFI-32) Vima Takto (Soter Megas) 80-90 AC
Material. Copper
Size. Dia.13 mm
Locus. H-6
Layer. Surface
Obverse. Bust of Mithra to right
Reverse. King riding on horse
Condition. corrosion-rust
Inscription. Mega Soter
Obverse. ΒΑΣΙΛΕΥ ΒΑΣΙΛΕΥΩΝ ΣΩΤΗΡ ΜΕΓΑΣ "Basileu Basileon Sotir Megas": "The King of Kings, Great Saviour".
Reverse. King riding right on horseback, holding scepter; three-pronged symbol of Soter Megas, before.

Coin.No.5 (BFI-33)
Material. Copper
Size. Dia. 24.75 mm
Locus. H-5
Layer. **I**
Obverse. King Standing
Reverse. Elephant
Condition. corrosion-rust

Coin.No.6 (BFI-34) (Later Kushan-Shaka. Vasu Deva, Circa 310-345 AC (Vasishka?)
Material. Copper
Size. Dia. 17.9 mm
Locus. E-6
Layer. II
Obverse. King standing at altar to left, crude style, no legend
Reverse. Perhaps enthroned Ardoxsho facing frontally
Condition. Badly damaged corrosion-rust

Coin, No.7 (BFI-35) (uncertain)
Material. Copper
Size. Dia.13.60 mm
Locus. H-5
Layer. I
Obverse. Bust of figure to right
Reverse. Standing figure with right hand throwing something
Condition. good

Coin, No.8 (BFI-36) (Late Mughal)
Material. Copper
Size. Dia.21 mm
Locus. G-7
Layer. **II** (loose soil)
Obverse. ?
Reverse. ?
Condition. Partially damaged by corrosion

Coin, No. 9 (BFI-37) (Circa 3rd Century BC)
Material. Silver
Size. 12.98x12.24 mm
Locus. G-6
Layer. Surface
Obverse. Flower
Reverse. Raw
Condition. Good

Coin, No.10 (BFI-38) (Circa 20th century AC)
Material. Bronze
Size. Dia. 16 mm

Locus. A-1(Lower complex, Mosque)
Depth. 30 cm
Condition. Good
Obverse. Logo of crest & Star, depicted in centre above the inscription, Government of Pakistan (English and Urdu script)
Reverse: Between two Wheat branches,1 Paisa, is depicted in three languages, Urdu calligraphy, English on top in semi circle and Hindi in bottom, above which date of production, 1963 is inscribed

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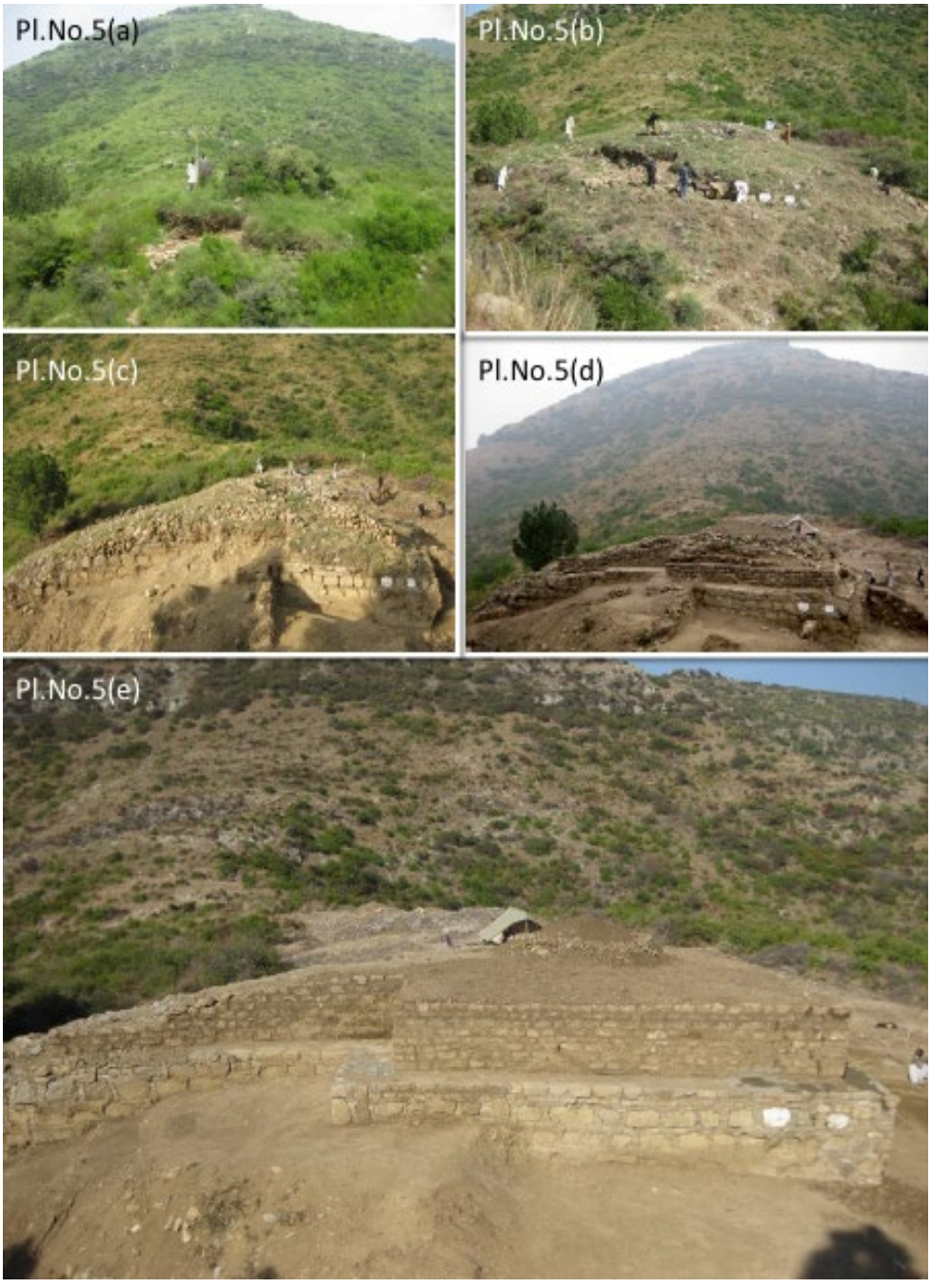
Plates of structural remain of Ban Faqrian Stupa before, during and after excavation.


Pl.No.3(a)
Pl.No.3(b)
Pl.No.3(c)
Pl.No.3(d)
Pl.No.3(e)


Pl.No.4(a)
Pl.No.4(b)
Pl.No.4(c)
Pl.No.4(d)
Pl.No.4(e)


Pl.No.5(a)
Pl.No.5(b)
Pl.No.5(c)
Pl.No.5(d)
Pl.No.5(e)


Pl.No.6(a)
Pl.No.6(b)
Pl.No.6(c)
Pl.No.6(d)
Pl.No.6(e)


Pl.No.7(c)
Pl.No.7(d)
Pl.No.7(e)

Plates of structural remain of Ban Faqrian Mosque and Water Tank before, during and after excavation.


(Pl.9.b)
(Pl.9.c)
(Pl.9.d)
(Pl.9.e)

Plates of potsherds, arrow heads and stone object recovered from Ban Faqrian Stupa during excavation.

Pl.No.10


Pl.No.11
BFI-14
BFI-17
BFI-18
BFI-19
BFI-20
BFI-21
BFI-22
BFI-23
BFI-40
BFI- 24
BFI-25
BFI-26
BFI-27
BFI-28

Plate of coins recovered from Ban Faqrian Stupa during excavation

Pl.No.12

Architecture

Tradition of Mosque Building in Lahore

Saira Ramzan

Introduction

The structure of the mosque appears as the most sacred place in Islamic architecture. It signifies as well as represents the faith or belief, as it plays a very fundamental role. Therefore, it seems that its role in Muslim society was realized at a very early age by the Muslims. Therefore, the followers of Islam created a very suitable visual consisting of essential building elements such as the Sanctuary or Prayer Chamber, Domes, Minarets, Ivan, Pulpit and a Monumental gate way. Thus, its structure becomes more practical and significant. As the Muslims mosque stands up and marks its profound supremacy. Originally mosque is believed to be a place that may offer a place to its believers for miscellaneous purposes. Briefly, mosque structure emerged not only as prayer place but also it accommodated travellers, providing facilities for teaching, served as administrative place as well as burials. It became a pivotal place which hosted a number of activities. Thus, in a Muslim community the mosque is believed as a central place where almost all activities concentrated. (Pereira 2004:3)

Etymology of Mosque

The term masjid is derived from the word Sajda, which means to prostrate, as it is referred to in Holy Quran. Thus, it signifies or denotes a place where prayer is offered however it retains its original purpose as such. But at the same time, it offers to its builders to use it for different miscellaneous purposes. So far as the construction of the Mosque is concerned it has been a common practice among the Muslims to erect its structure, sometimes elaborately embellished patronized by some wealthy people. But the essential structure in a Muslim community was mosque building, no matter big or small. Moreover, in big terms it has been a common practice to build a mosque in different quarters by the individuals. We are also informed that the Mosques were also build by certain tribes, sects as well as professional communities. After 10th Century the mosques were also built with secular architecture such as caravanserais, mausoleums, ribats, fortified buildings or forts, madrassas or theological colleges. The formation of a masjid in association with secular architecture or building became a popular tradition in Islamic architecture. This tradition shows that the masjid is a fundamental key of Islamic architecture (Creswell1958: 15).

In the advance learners dictionary the term Mosque is clearly defined as a building used for Islamic religious activities and worship. (Cambridge Advance dictionary 1999:258).

Historical Background

Masjid or Mosque has been regarded as fundamental key in the creation of Islamic styles of building. It is well known that Holy Prophet (SAW) purchased a piece of land and laid a foundation of a mosque at Madina. (Khan 1991:3) It is difficult now to have a precise idea of its architecture; however, it had traditional pattern, prayer chamber or sanctuary towards south and courtyard in eastern side. All the mosques in the world are built on the same pattern.

As far as the history of mosque architecture in subcontinent regarding Pakistan is concerned the earliest mosque known to have been erected on the soil of Pakistan was at Deybul, the famous sea-port in the neighbourhood of the modern hamlet of Banbhore some 40 miles north of Karachi. As for as the beginning of mosque architecture in Lahore is concerned it has been asserted that Mahmud of Ghazna erected a Mosque at Lahore which was called Khishti Masjid. Ravages of time did not leave this mosque intact. The brick construction of this mosque must have followed Central Asian traditions. (Khan 1991: 3-7)

The celebrated Usman Ali Hajveri, Better Known as data Ganj Bakhsh, is also credited to have erected a mosque at Lahore near his hermitage. No trace of that mosque exists now. It can only be survived that the existing modern mosque adjacent to his tomb is the modified and renovated version of the old erection (fig.1) (Shahzad 2009:25).

With the inauguration of the Mughal Empire in the Sub-continent to the early decades of the 16th century, mosque architecture received a new dimension, a new height of perfection and enrichment. Lahore is launched as Mughal city in history. If Lahore is compared with the different cities of India like Agra, Jaipur, Delhi etc. regarding to the Muslim buildings or architecture then there is no comparison of the buildings with the buildings of Lahore, but due to the brief stay of invaders at Lahore during travel from Central Asia to Delhi, Lahore always has been the centre point of attention. When British were ruling on Calcutta and Bombay, at the same time Lahore was occupied by Sikh rulers of Punjab. In 1849 after last Anglo-Sikh war British rule was established in Punjab (Shahzad 2009:25).

Lahore is one of the important walled cities of medieval times in Sub-continent. The walled city had 13 gates (Lala, K. 1884: 10), entrance was possible only through these gates. Lahore is rich with the historical buildings of Mughal Period including Lahore fort, Wazir Khan Mosque, Maryam Zamani or Begum Shahi Mosque, Dai Anga Mosque, Shalimar Garden, Jahangir's tomb, etc. thousands of people visit these historical buildings daily and see the glory of Mughal period. The two great mosques of Mughal period in Lahore named Wazir Khan Mosque and Badshahi Mosque are still very attractive for their visitors. The tallest minarets of Badshahi Mosque are second to none regarding to their beauty and simplicity. The architecture of above both Mosques was different from the native architecture (Chaghtai 1934:40).

During Sikh and British period Muslims also built many small mosques but architecturally they were not important. The small minarets were built on the ivans of these mosques. However, the facades of the ivans of these mosques got a new form and the glory of the facade converted into a common and simple appearance. Sunnehri Mosque is its fine example. In the beginning of the Mughal period the minarets of the mosques in Lahore were small in height and they were built on a square plan. They were built with the small bricks and the lime mortar was used in masonry. The peak of these minarets consisted of pavilion in which canopy had been used as an important element (Shahzad 2009:28).

Maryam Zamani Mosque was built in 1614 A.H. Maryam Zamani, mother of Mughal Emperor Jahangir built this Mosque on her desire and under her supervision. Building of the four small minarets on the four corners of the ivan of the mosque in the form of pavilion was the beginning of the building of minarets as an important feature in the mosques of Lahore. The minarets were covered with pavilion on which a finial was placed. Now this finial has disappeared. Before the construction of this mosque in the era of Emperor Akbar several mosques were built in the streets of Lahore but there is no evidence of minaret building in these mosques. However, the evidences of turrets are found in these mosques. (Brown 1942:148)

In 1634 Wazir Khan built a great mosque named as Wazir Khan Mosque inside Delhi Darwaza during the era of Shah Jahan. This Mosque was built under the supervision and devotion of Wazir Khan therefore, we do not find the specific architectural style of Shah Jahan in this mosque. This mosque was built on a rectangular plan and on the four corners of the square courtyard four tall minarets of 100 ft. height were built **(Fig.2).** These minarets were built on

octagonal plan. They are placed on square platforms with projecting balconies and are crowned with kiosks. However, kiosks are again covered with cupolas supported by five shafts and are marked with metallic pinnacles. (Khan 1991:99) After one year of Wazir Khan Mosque in 1635 a new Mosque was built named as Dai Anga Mosque. Dr. Abdullah Chughtai writes this mosque as Masjid Khawaja Maqbool in his book "Wazir Khan Mosque". This mosque is situated on Lahore railway station near platform no. 1. The ivan of this mosque in term of glory and beauty is second to none. The sanctuary and façade of the mosque is even after three hundred and sixty-three years still attractive and beautiful. On the eastern corners of Dai Anga Mosque two turrets were built on the pattern of the minarets of Wazir Khan Mosque (Latif 1956:136).

In 1673-74 A.H. Mughal Emperor Aurangzeb Alamgir created an outstanding mosque named as Badshahi Mosque or imperial Mosque **(Fig.3).** The grand Mosque is situated on a high platform, above the surrounding area, opposite the majestic Alamgiri gate of the Lahore fort with the four corners of the courtyard also possess octagonal minarets 176 ft. 4 inch high, excluding the pavilion and the cupolas, with an outer circumference of 67ft. in order to maintain symmetry and harmony in general appearance and environment, the overall scheme of surface revetment corresponds to the other minarets and turrets of the Mosque. The minarets have three storeys approached through a flight of steps created within the minarets up to the top (Khan 1991:112).

In the era of later Mughals round about 1749 A. H. Nawab Behkari Khan, who was governor of Lahore at that time built Sunnehri Mosque. Although no minaret is still existing in its true form. However, on the eastern corners of the Ivan two solid turrets were built. Now the pavilion on the top of the minaret has also become solid. The domes of the minarets and Ivan were coloured in golden colour due to which this mosque is called Sunnehri Masjid or golden Mosque. No stairs were built to access on the top of the minaret. Although, to fix speaker on the pavilion temporary bamboo stairs are used. In the era of Sikh and British there is no evidence of mosque building (Shahzad 2009:18).

In the Sikh period the mosques were under the occupation of Sikhs. And they used these mosques as arms depot and as the horse stables. The cannons were mounted on the top of the minarets of Badshahi Mosque by Sher Singh, who defeated the Dogra forces of Rani Chandra Caur (Chaghtai 1934:80).

Similarly, Heera Singh mounted the Zambura cannon on the minaret of Badshahi Mosque for shelling on the people under walled city, when British defeated Sikhs in Lahore then these mosques were occupied by the British, they used these Mosques as offices and residences of the officers. As, Muslims were in majority, so to win their hearts and to get Muslim sympathy British started to return their mosques one by one. Muslims began to renovate these mosques privately and once again Muslims started to offer their prayers in these mosques even after Pakistan came into being (Shahzad 2009:23).

After independence although a great Mosque was already here in the form of Badshahi Mosque therefore there was no need of a big Mosque for great crowd of Eid and other Muslim religious festivals. However, several small and common simple Mosques were built in streets and towns. But the building of minaret had become an important feature of the Mosques in the subsequent period (Brown 1942:168).

In 1978 General Zia-ul-Haq laid the foundation of a new Mosque affiliated with Hazrat Data Ganj Bakhsh **(Fig.4).** The old Mosque was very small and was insufficient for the increasing crowd of visitors. So, endowments department took decision of its renovation. Therefore, international and native architects were invited for this purpose. President of Pakistan selected the design of Naqvi and Sadiqqui with minor changes in design. In this way with the help of federal and provincial government the new part of the Mosque was built with the cost of 11 billion. The minarets of Data Darbar Mosque have become the land mark of Lahore like the Faisal Mosque in Islamabad (Shahzad 2009:93).

The proper and regular building of Mosque in Lahore begins in the era of Ghazanvid and the Khishti Mosque is the first Mosque in the history of Lahore which was built by Sultan Mahmood Ghaznavi. But the history books and archives do not tell us about its architecture and decoration in spite of the fact that this Mosque was built with the bricks. Besides this Mosque there is also the evidence of other three Mosques including “Neevi Masajid” and “Unchi Masjid” of Mughal period under Bhaati Darwaza (Latif1956:145).

Before the development of Maryam Zamani Mosque, the ornamented decoration, mosaic work and fresco paintings have been seen only on the walls of the tombs in Lahore. In 1614 when this Mosque was built then its internal walls and interior of the domes were ornamented with the help of beautiful colours of fresco paintings **(Fig.5)**. But exterior walls of the Mosque were not decorated **(Fig. 6)**. In 1634 when Wazir Khan Mosque was built than its exterior

walls and minarets were also decorated with mosaic work and fresco paintings **(Fig. 7)** (Shahzad 2009:37).

According to Dr. Abdullah Chughtai the buildings which were built in the period of Shah Abbass I the mosaic work on the walls of these buildings has close resemblance with the mosaic work of Wazir Khan Mosque.

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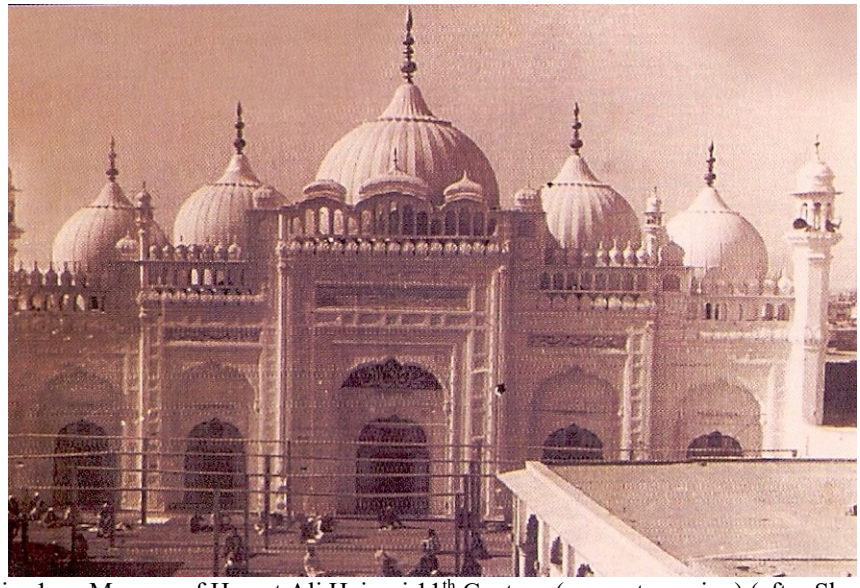


Fig. 1 Mosque of Hazrat Ali Hajveri 11th Century (renovateversion) (after Shad)

Fig.2 General view of Masjad Wazir Khan from the east, showing main entrance and four decorative minarets. (photo by the present researcher)

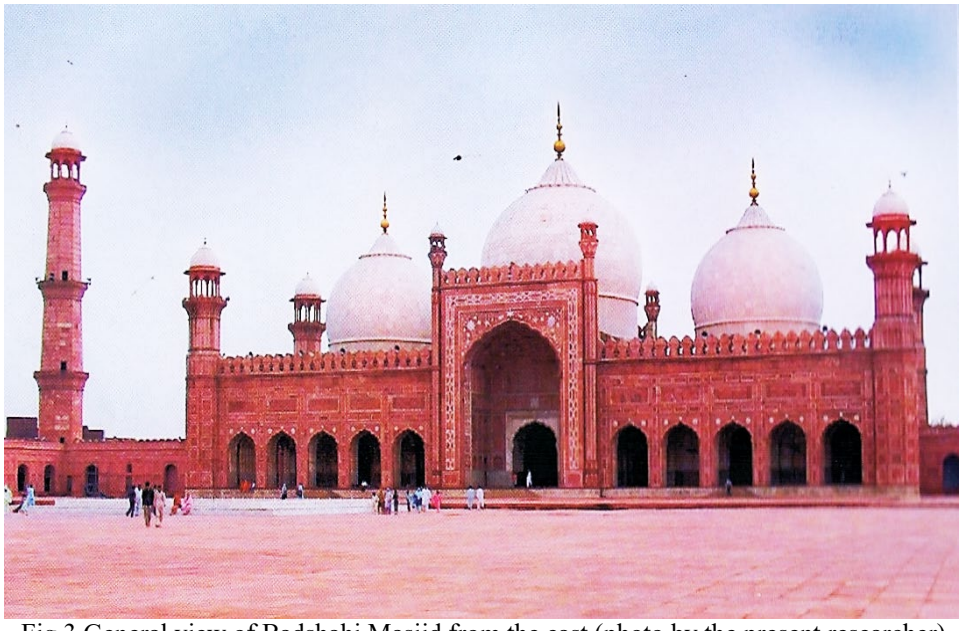


Fig.3 General view of Badshahi Masjid from the east (photo by the present researcher)

Fig- 4 New mosque of Data Darbar Complex, Lahore (photo by the researcher)

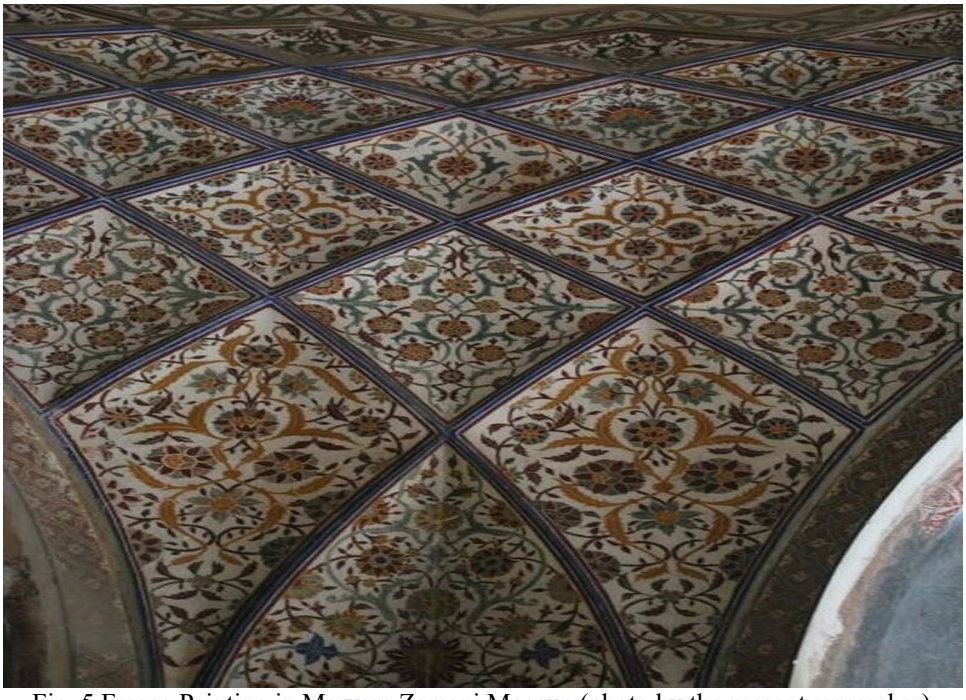


Fig. 5 Fresco Painting in Maryam Zamani Mosque (photo by the present researcher)

Fig. 6 Exterior of Maryam Zamani Mosque devoid of any decoration (photo by the present researcher)

Fig. 7 Exterior of Wazir Khan Mosque Decorated with Fresco Paintings (photo by the present researcher)

Miscellaneous

Contextualising Sir John Marshall's Photographic Collection at Durham Research conducted under an EMEMS Library Fellowship 2019

A REVIEW OF THE CONSERVATION METHODS IMPLEMENTED BY MARSHALL AT TAXILA AND EVALUATION OF THEIR LONG TERM SUITABILITY

Abdul Azeem*

Sir John Marshall was a remarkable administrator and a wonderful archaeologist and researcher who spent the prime years of his age in the Indo-Pakistan Sub-continent in pursuit of archaeological researches first as the Director General Archaeological Survey of India (1902-1928) and subsequently a decade or so after retirement writing voluminous books on his practical work including his enormous research in the Taxila Valley that primarily encompassed Buddhist art and architecture, but certainly was expanded in periods and times beyond Buddhist art and architecture. Apart from recording a large number of Buddhist religious establishments including Stupas and Monasteries in the Valley, he discovered three major cities in the valley belonging to different periods and times. These included Bhir Mound – the earliest historic city going back to the time of the Achaemenians (6^{th}-5^{th} century BCE), Sirkap of the Parthian Period (first century BCE/first century AC) and Sirsukh (Kushan Period from 1^{st} to 3^{rd} century AC and probably thereafter). He also recorded Jandial Zoroasthrian Temple probably going to the Sassanian Period (2^{nd}-3^{rd} century AC).

Marshall spent considerable long period of time at Taxila from 1913 to 1936 for large scale excavations of the archaeological sites in the Taxila Valley and successfully exposed massive remains of Buddhist monasteries, stupas and city sites. The important city sites include Bhir Mound, Sirkap and Sirskh, while the prized Buddhist monasteries and stupas amongst others included Jaulian

* Director Department of Archaeology and Museums, Government of Pakistan.

Monastery, Mohra Moradu, Piplan, Kalawan, Bhamala and Dharamrajika monastery and stupa. Most of the remains exposed by the great archaeologist were in much dilapidated condition. Conservation and restoration of those exposed remains was a great challenge for Marshall. Following the philosophy of conservation of historical monuments and remains prevailed in Western Europe in 19th century, he chalked out two basic principles for conservation and restoration of the exposed structures:

(1) To restore missing parts of the structures similar to original features. This principle was applied on those sites where some portions of monastic complexes were collapsed but most part of the structure was intact and there was no doubt that the missing portion had similar masonry. Such type of restoration can frequently be observed at Jaulian, Mohra Moradu, Piplan, Kalawan, Bhamala and Dharamrajika. However, original masonry and restored portions have been distinguished by a line in cement, at Dharmarajika date of restoration has also been inscribed on stone blocks.

(2) To conserve structures with modern type of masonry. This type of conservation has been applied on structures which were badly damaged, and it was not possible to confirm their original masonry or surface decoration. It is witnessed on votive stupas at Jaulian where upper portions of stupas were missing. Therefore, Marshall restored that stupas with the kanjur stone. Second example is Bhalar top stupa, all masonry and surface decoration of stupa has disappeared due to passage of time, but inner core of the massive structure was intact, Marshall applied chiseled stone blocks to cover the inner core and to protect it from further decay. Pilasters of famous Mankiala stupa have also been restored with featureless capitals. Similarly, structures of the city sites of Bhir Mound, Sirkap and Sirsukh had been conserved by capping upper surface of walls with a layer of stones laid in lime.

For writing a review of the conservation methods implemented by Marshall at Taxila and evaluation of their long term suitability, we shall have to see the principles laid down by the pioneering archaeologist for conservation of archaeological sites and historic buildings in his book titled “Conservation

Manual"[1] that he compiled for use in practical field by archaeological officers and others like architects, engineers, conservators, etc. entrusted with care of ancient monuments. However, before this landmark contribution, he had written a pamphlet titled "Conservation of Ancient Monuments" published in 1907 for guidance of the archaeological officers and conservators. He also took full advantage of the instructions contained in "Report of the Inspector of Ancient Monuments for the year ending March, 1913, apart from the prevailing philosophy of conservation of historical monuments in Western Europe in 19th century.

The classification of monuments by Marshall is very important:

(1) Class-I: Those monuments which from their present condition or historical or archaeological value ought to be maintained in permanent good repair;

(2) Class-II: Those monuments which it is now only possible or desirable to save from further decay by such measures as the eradication of vegetation, the exclusion of water from the walls, and the like; and

(3) Class-II: Those monuments which, from their advanced stage of decay or comparative unimportance, it is impossible or unnecessary to preserve.

This classification facilitated the archaeological officers and conservators to fix priorities accordingly and pay much attention to the monuments of Category – I & II. He devised the important principle of ownership and acquisition of land adjoining the site of an ancient monument, which may be needed for its preservation and provision of approach roads and means of access. This saved a large number of important sites from potential destruction. He emphasised on inquiries for ancient or local materials for the repair of a monument, so that the original material could be used in repair and restoration works. He also laid downs the principle that all previous notes on the same monument should be proper preserved and consulted while intervening at any stage. He made it mandatory that the conservation notes of the

[1] This handbook was published in Calcutta in 1923, but obviously after his long practical experience of over twenty-six years in the field. The principles thus laid down by him in this book were implemented by him while resorting to conservation of any archaeological site or historic monument in the length and breadth of the Sub-continent.

Archaeological Officers should be accompanied by representative photographs showing the condition of the monument from all points of view before its repair is taken in hand, and they should include full particulars (illustrated as a rule by sketches or scale drawings) of all works such as window, doors, railings, roofs, seats, or lamps, which are to be restored or newly inserted. No work is to be put in hand without such particulars.

He also made it a regular practice that once a monument has been treated a grant for its annual repair should be provided, in order that it may not deteriorate again before the more thorough repairs can be carried out. He was very cautious about the historical value and authenticity of the monuments and discouraged renewal of such buildings. According to him, it should never be forgotten that the historical value of ancient buildings is gone when their authenticity is destroyed, and that our first duty should not be to renew them but to preserve them. When, therefore, repairs are carried out, no efforts should be spared to save as many parts of the original as possible, since it is to the authenticity of the old parts that practically all the interest is attaching to the new will owe itself. Broken or half decayed original work is of infinitely more value than the smartest and most perfect new work.

He also directed installation of Notice Boards on all protected sites and monuments with warning to the public against damaging or disfiguring protected monuments or for using them for other purposes not compatible with the original purpose of the site or monument. Such boards with clear warning served as deterrent and saved the protected sites and monuments. He also emphasised on removal of weeds, trees and shrubs, etc. from walls of the sites and monuments. He directed that it was essential that the roots are completely destroyed, as the growth of vegetation in the joints of ancient bricks or stone buildings is one of the principal factors in causing their ruin, and the only sure way of dealing with this evil is constantly to eradicate the plants before they become fully rooted. He was also cautious about protecting the wall tops and desired that pointing to wall tops to be done in cement mortar made with coarse-grained sand, to which Medusa or Pudlo or other waterproofing materials may be added if considered necessary. The surface finishing should be of the same character as in lime mortar. The Manual deals with preservation related issues, but I have taken only selected treatments for review of the conservation methods adopted by Sir John Marshall.

Of the 4,910 very valuable photographs obtained from Marshall by Durham's School of Oriental Studies covering the whole of his time as Director General, Archaeological Survey of India (1902 – 1928) and continuity of work at Taxila after his retirement in 1928 to 1936 is certainly an important resource for researchers interested in a range of fields, from archaeology and architecture to Conservation and Buddhism. Many of the images are unique and offer views of structures and features now lost and some of the artifact photographs are the only record of material destroyed in museum during 2005 earthquake. In this context Volumes 19 and 20 of Marshall Collection pertaining to Punjab and Taxila are very important and relent to the present study by this researcher.

At the end of my research, I shall review contents of Marshall Collection Volume 19: Punjab, Taxila Marshall Collection Volume 20: Punjab, Taxila and Marshall Collection Volume 21: in order to undertake the following activities:

a) A full description of the subject of each photograph in Taxila, including building and date to be added to the individual item description;
b) A map of individual monuments and sites showing the location of each photograph in Taxila;
c) A modern photograph recreating the views of 100 photographs within the site of Taxila;
d) A review of the conservation methods implemented by Marshall at Taxila and evaluation of their long term suitability.

However, before that I am required to review the conservation methods implemented by Marshall at Taxila and evaluation of their long term suitability. The archaeological sites and monuments unveiled by Marshall in Taxila Valley are mostly built in stone, with some exceptions including the Kushan Period city of Sirsukh built in brick. Stone being the dominant construction material used in most of the sites in Taxila Valley, Marshall paid special attention to the stone structures and reconstructed a specimen of the constructional phases in stone in Taxila Valley in the shape of a wall inside Taxila Museum campus (Fig-1).

Plate-1. Marshall divided the constructional phases in stone in Taxila Valley into five distinct periods as shown in the picture.

It is worth consideration to note that restoration of architectural monuments is a complicated process. An appreciation of some external and certain unknown factors demands a profound knowledge of history, a true understanding of the present and an ability to anticipate the future. To my mind Marshall had all these abilities and he managed conservation of the archaeological sites and monuments in Taila Valley very well to prolong their life and safely pass them on to posterity.

As pointed above, Marshall had in his Conservation Manual set out general principles for the guidance of those entrusted with the custody of and execution of repairs to ancient monuments and had spelt out the precedence that preservation should take over restoration. He emphasised that “Officers charged with the execution of the work of repair should never forget that the reparation of any remnant of ancient architecture, however humble, is a work to be entered upon with totally different feelings from a new work or from the repairs of a modern building. Although there are many ancient buildings, whose state of disrepair suggests at first sight a renewal, it should never be forgotten that their historical value is gone when their authenticity is destroyed, and that our first duty is not to renew them but to preserve them” (Marshall, John 1923, 9–10)

Conservation methods applied by Marshall on archaeological sites were best suited to the nature of structures i.e. massive walls of monasteries and stupas in rubble and semi-ashlar masonry of lime stone. It provided a sustainable support to the structures. Most of the structures conserved by Marshall are still intact. In subsequent conservation works at Taxila methods and principles set by Marshall have been followed. In support of my contention, I am reviewing the conservation of the following important archaeological sites and monuments in Taxila Valley conserved by Marshall during the first quarter of the twentieth century:

(1) Bhir Mound;
(2) Sirkap;
(3) Dharmarajika Stupa and Monastery;
(4) Jaulian Stupa and Monastery;
(5) Lalchak;
(6) Mohra Moradu;
(7) Pippala monastery.

Bhir Mound:

Excavations on this earliest historic period city site had started in the autumn of 1916 and were completed in the spring of 1918. The conservation of the structures was carried out, as far as possible and practicable, with the digging. All the operations had been conducted under personal direction Sir John Marshall and under the direct supervision of Natesa Ayar, a former student and Excavation Assistant of Marshall and then Superintendent of Archaeology in the Frontier Circle. A few photographs from the archival record in the shape of photographs of the site excavated and preserved under supervision of Sir John Marshall are preserved in Volume 18: Punjab, Taxila in the Durham University are reproduced here for comparison with the state of preservation of the same during 2019 i.e. after one hundred years when this settlement site was exposed and the structures were treated under supervision of Marshall. The photographs include Plates-A, B, C, D & E for comparison with photographs taken during January-February, 2019.

Plate-A: This 288 mm x 207 mm Black and white monochrome photograph shows houses built in stone in the middle section of the excavated area from the north-west. It also illustrates the excavated stone walled rectilinear structures and the walls sit on top of material that has been excavated through allowing the later walls to remain.

Photograph of the area taken during 2019 i.e. taken after 100 years of the excavations/preservation of the site by Marshall. Thanks to the conservation methods adopted by Marshall for preservation of this first historic city site, the structures are still in satisfactory state of preservation.

Plate-B. This 199 mm x 133 mm black and white monochrome photograph from the west illustrates excavated stone walled rectilinear structures and spoil heaps around the trench edge.

Photograph of the same area taken during 2019. The heap of debris around the excavated area has been removed in this picture and the structures are in better state of preservation.

Plate-C: This 274 mm x 195 mm black and white monochrome photograph from the west the so-called main street in the northern section illustrates excavated stone walled rectilinear structures and spoil heaps around the trench edge.

This photograph of 2019 illustrates the same area reflecting the state of preservation of the structures after 100 years. The structures are in better state of preservation testifying the effectiveness of treatment given by Marshall 100 years before.

Plate-D: This 274 mm x 201 mm black and white monochrome photograph view from south-west near the Railway Station road illustrates excavated stone walled rectilinear structures and a spoil heap on the trench edge.

Photograph taken in 2019 for comparison shows satisfactory state of preservation of the walls preserved by Marshall 100 years from now.

Plate-E: This 275 mm x 205 mm black and white monochrome photograph view from the east illustrates excavated stone walled rectilinear structures Within one of these rooms are two rounded plinths constructed out of fragments of stone.

Photograph taken in February, 2019 for comparison shows overgrowth of grass hiding the structures exposed by Marshall 100 years before. The visible structures are however, in better state of preservation.

Sirkap:

Excavated by Sir John Marshall some 100 years from now, the site is in good state of preservation. However, vegetation is the main problem on the sites of Taxila and Sirkap is no exception. The remains along the main street are well maintained while on the back side remains are ignored and in bad state of preservation. The structures were also found in good state of preservation and where the structures needed conservation, Marshall took prompt action under his direct supervision to ensure that the affected and fragile structures are effectively treated. This researcher has reproduced a few photographs from Marshall's Volume 23 (Plates-F,G,H,I,J,K) for comparison with photographs taken during January-February, 2019.

Plate-F: This 277 x 173 mm black and white monochrome photograph of the settlement of Sirkap, Taxila. General view, from the east, of excavations at Sirkap (conducted in the spring). Illustrates the excavated rectilinear structures and walls of the settlement with spoil heaps present around the edge of, and within, the excavated area.

Apart from overgrowth and vegetation, the structures exposed and treated by Marshall 100 years before are still in good state of preservation.

Plate-G: This 277 mm x 200 mm black and white monochrome photograph of the settlement of Sirkap is the general view from the west of Block 2 B and illustrates excavated rectilinear structures and walls. A circular structure is visible in the foreground.

Still in good state of preservation after 100 years when the settlements were exposed by Marshall and preserved, but overgrowth and vegetation are adversely affecting the ancient structures. The photograph portrays the state of neglect after devolution of the sites to the Government of Punjab in 2011.

Plate-I: This 199 mm x 133 mm black and white monochrome photograph view from south-west of Block E depicting rectilinear structures with spoil heap on the trench edge and hills beyond.

This photograph taken in 2019 shows the structures in a very good state of preservation even after 100 years when they were exposed and treated by Marshall. This state of preservation clearly testifies the effectiveness of conservation methods adopted by Marshall.

Plate-J: This 265 mm x 208 mm black and white monochrome photograph depicts the panoramic view looking west and north and illustrates the excavated rectilinear structures and walls of the settlement.

This photograph taken in February, 2019 shows a state of neglect on part of the managers of the site. Wild bushes and grass can be seen all over. This was one of the most burning problems pointed by Marshall and it is a continuous exercise to remove the overgrowths and bushes from the site to protect them from potential damages. The Government of Punjab is now responsible for the maintenance of the site after devolution in 2011. Otherwise, the structures are still in good state of preservation after treatment by Marshall 100 years before.

Plate: H: This 281 mm x 203 mm black and white monochrome photograph from north-west of Block 3A at Sirkap, showing rectilinear structures exposed during excavation.

In this photograph taken in February, 2019, most of the remains exposed and treated by Marshall are reburied and only few courses of the structures are visible. This was done to save the fragile structures from falling down. However, the structures are in very good state of preservation even after 100 years, testifying the effectiveness of conservation treatment of Marshall.

Plate-I: This 263 mm x 203 mm black and white monochrome photograph shows a small drain running alongside the north wall of what Marhsall had termed the 'big house', in block F at Sirkap. The narrow gully of the drain is clear, and the wall to the back of the image has stone facing.

The February, 2019 photograph shows the very bad state of preservation of the structures. The drain has been filled and buried and the structures are covered with thorny bushes and wild growth. The present state of preservation, however, does not mean that the preservation treatment of Marshall has failed. This deplorable state of preservation is because of sheer neglect and insensitivity of the present managers of the site.

Dharmarajika:

Dharmarajika is the earliest stupa and a grand one in Taxila Valley. I am reviewing a few photographs of this magnificent stupa from Volume 19 of Marshall.

Plate-J: This 200 mm x 149 mm black and white monochrome photograph of Dharmarajika stupa taken from the north-east of stupas 1 and 2 after conservation. The stupas are square, with the smaller located in the foreground. This smaller stupa has diaper masonry base, with the second level containing stucco pilasters and seated Buddha images. The larger stupa in the background has stone pilasters around its facing.

The present state of preservation after 100 years clearly testifies that the treatment given to these structures was very effective and greatly helped in prolonging the life of these ancient structures.

Plate-K: This 286 mm x 224 mm black and white monochrome photograph of Dharmarajika stupa, Taxila. Was taken from the north-east of the interior of a courtyard of monastic cells.

The structures are still in very good state of preservation after 100 years of their treatment, showing the effectiveness of the conservation techniques of Marshall.

Plate-L: This 286 mm x 228 mm black and white monochrome photograph taken from south-west, of the interior of a courtyard of monastic cells.

In this photograph taken in February 2019, the steps in the tank are missing now. However, the structures are still in good state of preservation.

Plate-M: This 200 mm x 134 mm black and white monochrome photograph of Dharmarajika stupa showing detail of the north steps of the main stupa (Christope), from the north-west.

The conservation carried out after Marshall is obviously faulty and does not match the original.

Plate-N: This 201 mm x 150 mm black and white monochrome photograph is the general view of monastic buildings to the east of stupa 1.

The conservation treatment of Marshall has stood the test of time even after 100 years.

Plate-O: This 278 mm x 200 mm black and white monochrome photograph of Dharmarajika stupa, Taxila after repairs, of chapel N17.Steps lead up to the repaired chapel, which has a new roof.

The treatment given by Marshall 100 years from now has stood the test of time.

Plate-P: This 199 mm x 132 mm black and white monochrome photograph taken from north of the main stupa and surrounding edifices.

The present state of preservation of the main stupa shows that even after 100 of the treatment given by Marshall, the main stup has not only survived but also in a very good state of preservation.

Plate-Q: This 205 mm x 135 mm black and white monochrome photograph taken from south-east shows the square stupa with stone pilasters running around its lowest level, with a central arch.

Despite lapse of 100 years, this particular stupa is still in good state of preservation, testifying the effectiveness of Marshall's conservation strategy.

Plate-R: This 197 mm x 134 mm black and white monochrome photograph of friezes around J. The lower stucco frieze includes pilasters with damaged seated Buddha figures in between. The Buddha figure to the right of the image has been lost, but the one to the left has a smaller attendant figure to its right shoulder. A series of stucco figures, possibly representing atlas figures, are present on the upper frieze.

Sign of deteriorations are visible in this recently taken photograph. The lime plaster and the stucco figures have either gone or considerably deteriorated, but this does not mean that the treatment or remedy devised by Marshall were defective. This clearly shows neglect and mistreatment of the stucco and lime plaster by the present custodians.

Plate-S: This 277 mm x 192 mm black and white monochrome photograph depicts the interior of chapel N18. Detail of the feet of two stucco Buddha figures, a larger central one, and one to the right. Both of these are broken above the ankles. Another broken stucco sculpture on a plinth is to the left of the image.

The treatment of Marshall of the stucco sculptures was very effective and the very good state of preservation of the same even after 100 years reflects the effectiveness of Marshall's strategy.

Jaulian:

Jaulian monastic complex is considered the face of the Buddhist religious heritage of Taxila Valley and of great importance. Marshall had also realized the importance of this Buddhist religious establishment and had paid special attention to its preservation. I have taken a few photographs from Volume-20 of Marshall's archival record of photographs preserved in Durham University.

Plate-T: This 199 mm x 133 mm black and white monochrome photograph of Jaulian illustrates the main stupa from the south-east. The diaper masonry of the stupa faces are clear, and on the main stupa broken stucco images are present, including a seated Buddha/Bodhisattva with a broken head. Next to this seated image is a photographic scale. On the damaged small square stupas stucco sculpture is present, including seated Buddha or Bodhisattvas in archways, pilasters, and large seated Buddhaor Bodhisattva images with halos framing their heads.

This photograph taken in February, 2019 clearly shows that the treatment given by Marshall greatly helped the survival of the stucco sculptures attached to the main stupa and the stupas surrounding it. Some of the stucco work was visibly damaged and to some extent vanished with the passage of time due to neglect and natural factors such as heat, winds and rains, etc. This important and sensitive area was provided by a shelter by Marshall to save the precious stucco sculptures in situ from further damages. Due to precarious condition of the shelter, it has now been replaced with a new one.

Plate-U: This 197 mm x 134 mm black and white monochrome photograph taken from north-west, of stupas A14 and A15 shows the two square stupas; their tops are damaged and eroded, and their faces are decorated with stucco sculpture and mouldings. The stucco on the facing is heavily damaged, and on A14 seated Bodhisattva/Buddha figures are present within curved archways, separated by pilasters. The faces of A15 depict large seated Buddha or Bodhisattva figures, though these are all missing their heads. The large main stupa is present in the background and a scale is placed in front of the base of stupa A15 in the foreground.

The stupa containing precious stucco figures of the Buddha was given treatment to consolidate the fragile structures and figures after 80 -90 years of the first excavation and treatment by Marshall. The shelter provided by Marshall to secure the stucco works in situ was also replaced due to its being in a very bad state of preservation. It was due to very careful handling and treatment by Marshall that the stucco work has survived even after 100 years when they were exposed to atmospheric action.

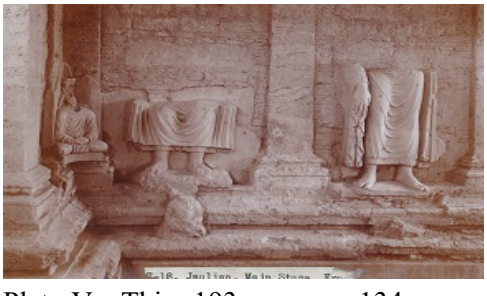
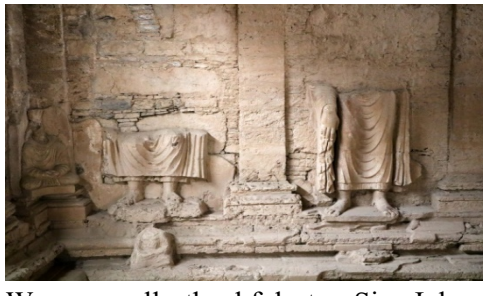


Plate-V: This 193 mm x 134 mm monochrome photograph shows stucco sculpture/mouldings on the western half of the front face of the main stupa at Jaulian. The image illustrates two



We are all thankful to Sir John Marshall for the great care and very precise and pertinent treatment to the stucco work at Jaulian. All these works might have gone forever, had Marshall

standing Buddha/Bodhisattva images between pilasters. To the right of the image the Buddha is broken at the hips, and the feet and and a right hand are clearly defined, as are the drapery folds of the robe. The standing figure to the left of the image is broken at the knees, and whilst the drapery folds of the robe are clear, the feet are damaged. Below the feet a small seated Buddha/Bodhisattva image is present, missing its hands and head. In front of the corner pilaster, to the far left of the photograph, is a seated Buddha/Bodhisattva image, missing its head, but with clearly defined hands and robe.

Lalchak:

I have compared a few photographs of Lalchak from Volume 22 of Marshall to give the present state of preservation and also to prove that the conservation strategies of Marshall had not failed even after 100 years.

Plate-W: This 202 mm x 139 mm black and white monochrome photograph of Lalchak, Taxila taken from south-east shows the square stupa of which the terraced base is faced with stone and pilasters. The dome of the stupa is damaged and constructed from rubble.

Look at the highly deteriorated state of preservation of the stupa. It turned into a mound due to negligence of the custodians of the site. Modern constructions have been made around it in clear violation of the law of the land. This pathetic state does not reflect that the treatment of Marshall has failed, but the irresponsible and insensitive attitude of the managers of the site.

Plate-X: This 194 mm x 136 mm black and white monochrome photograph shows the interior of the monastery at Lalchack. The walls are faced with diaper masonry, and the tops of the walls had been sculpted and finished as part of conservation after excavation. Steps are present to the left of the image. A small triangular topped niche is also present on one of the walls to the right.

The monastery shown in the recently taken photograph shows that it is in a very good state of preservation and the treatment given by Marshall 100 years from now has stood the test of the time. However, new construction is visible behind.

Mohra Moradu:

Only a few photographs pertaining to Mohra Moradu in Volume-22 of Marshall have been selected for comparison with the recently taken photographs.

Plate-Y: This 199 mm x 147 mm black and white monochrome photograph taken from the north of the monastic quadrangle at Mohra

Despite lapse of a long period of 100 years, the treatment given by Marshall to the ancient ruins after they were exposed

Moradu depicts modern canopy above several of the cells.

Plate-Z: This 196 mm x 133 mm black and white monochrome photograph of Mohra Moradu shows two large seated Buddha figures that form part of a stucco relief. The sculptures are damaged, with the figure to the left of the image missing the head, shoulders, hands and legs, and the figure to the right missing the head and hands. The Buddha figures are seated on thrones, which are missing much of the stucco, but drapery is depicted over them as well as several smaller figures. The masonry is visible in places and a scale is placed to the left of the image against the uncovered plinth.

After treatment by Marshall some 100 years from now, these stucco sculptures at Mohra Mradu monastic complex came down to us in a good state of preservation, testifying the suitability and effectiveness of Marshall's conservation strategies.

Plate-A1: This 195 mm x 134 mm black and white monochrome photograph shows the general view of the monastic quadrangle at Mohra Moradu revealed after excavation. The exposed monastic quadrangle has modern canopy above several of the cells.

A well-maintained site with structures in a very good state of preservation.

Pippala monastery:

A few photographs have been taken from Volume 22 of Marshall for comparison with recently taken photographs of Pippala site.

Plate-B1: This 196 mm x 150 mm black and white monochrome photograph of Pippala monastery, Taxila illustrates chapel No. 31, which contains stupa H. Modern pillars, which replicate the masonry of the monastery, support a shelter for the chapel.

This is a well-maintained site and the shelter provided by Marshall to save the stucco work inside proved very effective. The continuous of the same arrangements even after 100 years reinforce the faith of the present custodians of the site in the techniques of Marshall.

Plate-C1: This 200 mm x 150 mm black and white monochrome photograph of Pippala monastery shows details of the south face of stupa D, illustrating the diaper masonry and pilasters.

In this recent photograph, treatment to the top of the stupa is visible. The stupa came down to us in a better state of preservation due to effective preservation strategy of Marshall.

Plate-D1: This 203 mm x 192 mm black and white monochrome photograph depicts the entrance to room 23 at what has been identified as the later monastery at Pippala. The walls are boulder-in-mud construction set on a base of solid semi-ashlar.

This recently taken photograph clearly shows the signs of deterioration as compared to the photograph showing the state of preservation of the structures after excavation and treatment 100 years from now. This reflects negligence on part of the present managers of the site.

Plate-E1: This 203 mm x 135 mm black and white monochrome photograph depicts detailed view of the east face of the steps leading to the courtyard of what has been termed the later monastery. In the background, to the left of the image, a modern shelter is visible.

The conservation methods of Marshall saved the structures and safely came down to us even after 100 years of their treatment. The placement of shelter over the stucco sculptures has proved very effective in saving the already damaged and fragile stucco sculptures in *situ*.

Plate-F1: This 289 mm x 192 mm black and white monochrome photograph shows details of a panel of stucco sculptures on the north face of outer stupa D (it is noted on the back that this has been subsequently removed to the museum). The stucco pilasters and figures are damaged and the masonry behind is visible. To the left of the image is a seated Buddha image on a throne, wearing a robe over one shoulder. Either side the feet of smaller figures are present. To the right the bottom portion of a figure is present, which has a figure to the side broken from the knees up.

The stucco sculptures in situ from the stupa wall have been removed and shifted to Taxila Museum, as it was difficult to retain them for reasons of safety and other hazards including weather and rains. However, the stupa is in good state of preservation testifying the effectiveness of the treatment given by Marshall.

Conclusion:

Sir John Marshall had an in-depth knowledge of the conservation practices in vogue in Europe in general and in England in particular during the nineteenth century and at the dawn of the twentieth century. He was in the practical field for many decades and had studied the problems of the archaeological sites and monuments, particular soon after their exposure to atmosphere after many centuries and at time millennia. He had deeply studied the material used in the built heritage and the kinds of threats to them. He had the assistance of trained and qualified engineers and architects of the Public Works

Department in Indian Sub-continent on one hand and had developed his own conservation team very much dedicated to the cause and task given to it by Marshall. He had the best of the archaeological officers at his service in the Archaeological Survey of India, who were all very much attached professionally and emotionally to the cause and task given to them by their leader.

Marshall and his dedicated team avoided restoration, reconstruction and rebuilding of the ancient structures and made every effort to preserve whatever has come to them through archaeological excavations. They did not opt for wholesale treatment of the exposed structures and fragile stucco works in the Taxila, but gave treatment in each case according to merit. They preserved some structures and the precious stucco works by mere providing shelter to secure them from direct rain and exposure to sun and other atmospheric irritants. They gave treatment to the top of the standing structures to secure them from penetration of rain water that might have caused their ultimate destruction. They secured the foundations of the standing structures where necessary and reburied some structures fully or partially to save the standing structures from falling to the ground or future researches. They had a thorough study of the material used and the quarries from where the same indigenous material could be easily obtained for conservation and partial restoration where essential to ensure that the restoration work is matching the original work and that the same material and from the same source has been used in the restoration work. They also clearly made distinction between the original and the restored work and maintained very authentic and reliable record of the treatment given in each case.

It was because of the very careful handling of the archaeological sites and historic monuments, thorough research by the dedicated team of Marshall for original sources of construction and bonding material and their careful used in restoration, most effective treatment for consolidation of the standing structure and their foundations, etc. that we can see these precious gems in almost perfect state of preservation even after 100 years of their exposure to atmospheric irritants and the most pertinent and effective treatment. Thanks to the very careful and most authentic photographic record with notes by Marshall that we are able to compare these sites and monuments with their condition 100 years back. Without such reliable archival record, we must have been wandering in wilderness for authenticity of these heirlooms of our great past.

Archaeological Research Activities in Pakistan (1947 – 2017)

Tahir Saeed
Arshad Ullah

The archaeological researches activities and discoveries carried out during pre and post British Government colonial period in the different areas of Pakistan had yielded a considerable quantity of research data which is a great asset to re-construct the historical time scale of this area. A. H. Dani has very rightly mentioned this factor in the following words:

"we are heavily indebted to our late British masters and also to other European and
American scholars for the introduction of "Archaeology" in the sub-continent."

(Dani1988:34).

It is further mentioned by the same writer the names of the real pioneers for the introduction of archaeological pursuits in the sub-continent which are; General Sir Alexander Cunningham, who with the help of his colleagues open up the new vista of archaeology by his publication of Archaeological Survey Reports and the British Viceroy, Lord Curzon who appointed Sir John Marshall. Further that Sir John Marshall brings around many civilizations and extended our cultural horizon to the most ancient beginning of human civilizations in the East. Besides, there were Sir Aurel Stein and Alfred Foucher whose achievements are tremendous and acknowledged worldwide. This led to open several research centers pertaining to different fields of archaeological studies in European and American Universities. Another British Master was Brigadier (Sir) Mortimer Wheeler who had entirely new vision of archaeological research and explains how to link the archaeology of North India with that of the south east and west" (Ibid. 34).

The establishment of Federal Department of Archaeology & Museums:

At the time of partition of India in 1947, the Department of Archaeology & Museums was carved out of the pre-independence days of the Archaeological Survey of India established in 1861 which comprises on a small unit having its two offices, one each in the East and West Pakistan. The Superintendent of

Archaeology of the Archaeological Survey of India took over the position of the Director of Archaeology in Pakistan with small staff. The Headquarter of East Pakistan Circle of Archaeology was set up at Rajshahi, and Lahore became headquarter of West Pakistan Circle. The West Pakistan Circle was however, real successor to the British Indian Frontier Circle and the East Pakistan Circle was a part of colonial Eastern Circle. The Frontier Circle of Archaeological Survey was established at Peshāwar in 1906 for the protection of monuments in the former North West Frontier Province including Balochistan. The two headquarters of the former Frontier Circle were however, shifted to Lahore in 1928 when the Muslim and British monuments in former Punjab were also transferred to that Circle. However, due to financial constraints the Circle dealing with the Hindu and Buddhist monuments at Lahore was abolished and transferred to the former Frontier Circle in 1931. Later on with the establishment of Pakistan, this Circle was reorganized and re-named as West Pakistan Circle and all the monuments located in West Pakistan were put under its control (Mughal 2011: 119). After the creation of Bangladesh in 1971, the administrative set up was reorganized into two Circles namely; Northern Circle of Archaeology at Lahore and Southern Circle of Archaeology at Hyderabad.

Archaeological Explorations and Surveys by the Department of Archaeology and Museums:

After independence, the Department of Archaeology and Museums, within its limited resources continued to carryout archaeological research activities in the different areas of Pakistan. The early important archeological surveys were carried out in Multan and Faisalabad Districts (1963), Sahiwal District (1971), Attock and Rawalpindi Districts (1972), Northern Balochistan (Zhob, Loralai, Quetta and Kalat Districts, 1972), southern Sindh (Thatta and Hyderabad, 1972), Cholistan and Bahawalpur Districts (1974-77), Mian Ali Faqiran (Sheikhupura, 1981-82). The Department of Archaeology and Museums also carried out explorations in Margalla Hills (from Nicolson Monument to Shah Allah Ditta Caves) during 1986. The Federal Department of archaeology & Museums carried out a comprehensive survey in the province of Punjab during 1992-96 and documented 1183 Nos. sites relating to; Pre-Historic, Hakra, Early, Mature and Late Harappa sites, Gandhāra Grave Culture as well as Muslim, Sikh and British Period (Mughal 1996: 275).

In order to document and preserve the Cultural Heritage especially the Buddhist sites in Swāt and Buner, a comprehensive project "Survey of archaeological Sites in ancient Gandhāra" was carried out by a team constituted

by the Federal Department of Archaeology and Museums under the direction of Saeed-ur-Rehman, during the period from 1991 to 1996. During this survey at least 60 new archaeological sites in Swāt Valley and 250 sites in Buner were recorded. The archeological explorations / survey and Salvage Operation included; Exploration in Buner District, Exploration in right and Left bank of Swāt River, Excavation at Sisaka Kandaro Patay , Dadahara site, Swāt, Excavations at Gumbatuna Stūpa, Swāt, Survey of historic Rock Carvings in Swāt Valley, in addition to Exploration in Bajaur Agency, Exploration in District Nowshera and Excavation at Bisak Banda, District Swabi (Saeed ur Rehman 1996).

During this broad perspective archaeological survey, a large number of archaeological sites relating to Proto-Historic, Historic, Buddhist Period, Muslim Period were explored, excavated and well documented by the team of the Federal Department of Archaeology and MuseumS. The research studies of Rock Carvings in Swāt Valley were carried out by the Federal Department of Archaeology and Museums during 1991-94 under the project "Gandhāra archaeological Project". Though Rock carvings and stelae in Swāt Valley were first reported by Sir Aurel Stein in 1926 and Barger and Ph. Wright in 1938 followed by Italian's during 1950's, but during this survey some new rock carvings were documented depicting Mahayanic and Brahmanical features (Khan, Ashraf 2011: 82).

During the year 1999, the Federal Department of Archeology and Museums carried out archaeological survey and documentation of sites and monuments in Malakand Agency. The survey resulted that Malakand Agency which once remained the abode of Buddhists and home of Gandhāra Art during 2^{nd}-7^{th} century C.E is no less important in term of archaeological wealth than Swāt, Buner, Bajaur, Dir and other Buddhist establishments. During this archaeological survey some 54 important Buddhist sites were documented and properly recorded by a team constituted by the Federal Department of Archaeology and Museums (Khan, Bahadur 1999). The Federal Department of Archaeology & Museums has started a comprehensive survey of archeological sites and monuments in Islamabad Capital Territory since 2016 and under this survey about 40 historical importance sites and monuments have been recorded and documented.

Archaeological Excavations by the Department of Archaeology and Museums:

The archaeological excavations were also carried out at a number of important sites in Pakistan during the last seventy years. These includes mainly at; Moenjodaro (1950 & 1982), Banbhore (1951, 1958-63), Naru Waru Dharo, Sindh (1955), Kot Diji (1955-56), Charsada under the direction of Sir Mortimer Wheeler (1958), Qutubuddin Aibak's Tomb, (1956), Lahore Fort (1959), Talumba (1963-64) Bakhar, Pubjab (1965), Harappa (1966), Mansura, (1966,68,1977-78 & 1985-86), Bhir Mound (1967-69), Pan Dheri (1967), Nimogram, Mankiyala (1968), Sarai Khola (1968-72), Zarif Karuna (1971), Satgarha, Punjab (1971), Jalilpur, Punjab (1976), Jhukar, Sindh (1973-74), Jhang (1974), Megaliths, Malir (1975), Mian Ali Faqiran, Punjab (1978-81), Chinkolai, KPK (1979-80).

Besides, other main Departmental excavations which were carried out at the different archaeological sites include; Hathial (1980-82 & 1988), Haji Shah Moro Punjab(1985-86), Hassan Abdal, Taxila (1983, 1988), Baligram (1991), Malam Jaba (1991), Nawagai (1991), Gumbatuna (1992), Dadahara (1992), Tokardara (1995), Asan Kote (1997), Buchkan Stūpa, Palai (1998), Swāt, Buner, Nowshera, Bajaur Agency (1994-95), Chargul Dheri (2002-03), Bhir Mound, Taxila (1967), (1998-2002), Buddhist remains at Takht-i-Bahi, Mardan (2005-06), Jinan Wali Dheri (2002-06) and excavations at Badalpur, (2005-10). The Department of Archaeology and Museums have recently carried out excavations (2015-16) at a Buddhist stupa namely Ban Faqiran, in Islamabad Capital Territory.

Archaeological Explorations and Excavations by the Foreign Archaeological Missions in collaboration with the Department of Archaeology and Museums:

After independence of Pakistan, Federal Department of Archaeology and Museums continued the archeological research activities in close collaboration with the foreign archaeological missions as well as local and foreign universities. The worth mentioning archeological explorations/surveys carried out at different sites include; exploration in Kalat area, Balochistan by Council of Archaeology, England (1948 & 1957), in Zhob and Loralai Valleys by the American Museum of Natural History (1950), at Potwar Plateau (1954) Skardu, Hunza (1955), Gilgit (1960), Chitral (1961) and Kashmir (1962) by Geological Institute of Milan, Italy, Southern Balochistan and Bahawalpur by Peabody Museum of

Archaeology and Ethnology, Cambridge, (1955), at Swāt by the Italian Archaeological Mission (instituto Per il Medio Estremo Oriente, Rome, IsMEO now as IsIAO) under the leadership of world famous archaeologist, Prof. Giuseppe Tucci (1956), in Lasbela by American Museum of Natural History, New York (1959-60), Mekran Coast by University Museum of Pennsylvania, (1960), Kalam and Chitral Valleys by IsMEO, Italy (1961,1963 &1966), Peterson's work in Potwar region which he carried out in 1933, was continued later on by Italian Mission to Northern Areas of Pakistan led by Paolo Graziosi (1964) (Khan, Nabi 1990: 49).

A survey in Rawalpindi was conducted by American Archaeological Mission led by Elden O. Jonson from Minnesota University (1964), and then a survey in Indus Valley, Sindh was conducted by a team of Cambridge University, England (1975-76). A detailed archaeological survey of Paleolithic period of Potohar region including Rawalpindi region was carried out by a British team headed by Bridget Allchin and Raymond Allchin, University of Cambridge with collaboration of the Federal Department of Archaeology and Museums, and Geological Survey of Pakistan from 1979 to 1990. The team investigated earlier years in the Soan Valley and Pabbi Hills. The team also recorded archaeological sites and two million old artifacts near Rawat and localities with fossils. At Darel Valley, Gilgit archaeological researches were carried out by Italian team from Rome, IsIAO (1980), and researches of Rock carvings in the Northern Areas by Pak-German Study Group (1980-2010).

The archaeological excavations which were carried out on the soil of Pakistan by foreign missions in close collaboration with the Federal Department of Archaeology and Museums includes; excavations at Damb Sadat and Kili Gul Muhammad, Quetta Valley by American Institute of Natural History (1950-51), at Kasmir Smast, Chanaka Dheri, Thareli and Mekha Sanda by Kyoto Scientific Mission to Gandhāra, Japan (1959-67). Later on, Prof. Koji Nishikawa continued work at Ranighat, District Buner (1960-62 and later in 1983 to 1992, conservation works carried out from 1994 to 2004). At Amri, Dadu explorations were carried out by Musee Guimet, Paris (1962-65), at Allah Dino near Karachi by American Institute of Natural History (1973-77), at Moenjodaro by University Museum of Pennsylvania, USA (1964-65), Nindowari, Kalat by Musee Guimet, Paris (1962-65), at Pirak (Kachhi) by Musee Guimet, Paris (1967-71), Bala Kot (Lasbela) by University of California, (1973-76), at the sites of Mehrgarh, Nausharo by Musee Guimet, Paris (1974-75 & 1987-88), Sanghao

Cave, Mardan by Temple University, U.S.A (1975), Lewan Dheri , Bannu by Cambridge University, England (1978-79), Tarakai Qila, by Cambridge University, England (1978-79), the Tokyo National Museum, Japan conducted exploration in Hazara Division and excavation at Zaro Dheri site which is located at the start of Karakorum Highway in Hazara Division (1992-2000) (Yoshihide 2008: 308).

The Pak-German Study Group started proper documentation of Rock carvings in Northern Areas of Pakistan with the opening of Karakorum Highway in 1979-80 by Dr. Jettmar and Prof. Dr. Ahmad Hassan Dani with the collaboration of the Federal Department of Archaeology and Museums. The research work successfully continued by German researchers in close collaboration with the Federal Department of Archaeology and Museums, till 2010 under the leadership of first by Karl Jettmar and later by the Harald Hauptmann and Salwa Hauptmann (Hauptmann 1997: 14).

Similarly, the Archaeological Mission from Dunggok University, South Korea, headed by Prof. Moon carried out archaeological excavations at Jaulian, Taxila, 2004-05 and exposed remains of a Buddhist Stūpa and Monastery belonging to 2nd century, CE. The French Archaeological Mission under Aurora Diddie carried out archaeological reaches in Sindh areas during the years 2014-17.

The contribution of Italian Archaeological Mission, Rome Italy (IsIAO) in the different regions of Swāt Valley is however notable and praiseworthy. The Italian's archaeological researches were started in 1956 by Prof. Giuseppe Tucci in Swāt with the authorization of Wali-i-Swāt, His Majesty Miangulzeb. The understanding of early historic urban settlements has been one of the many goals of the IsIAO (former IsMEO) Italian Mission in Swāt. The excavations launched by Giuseppe Tucci at the end of the 1950's included, in addition to the Buddhist sanctuary of Butkara-I, the urban settlement at Udegram identified as the town of Ora that was conquered by Alexander the Great in 327 BCE. Domenico Faccenna, realizing the importance of both sanctuaries and towns, excavated a small portion of the urban settlement adjacent to the Buddhist sanctuary. Tucci identified this town, largely buried by modern Mingora, as *Meng jie li*, the Uddiyana's capital, which however, Sir Aurel Stein had placed at modern Manglawar. Among the main concerns of the IsMEO Mission were also Buddhist art and architecture, and the Buddhist sanctuaries of Panr-I and Saidu

Shraif-I became the focus of excavations, later on at Barikot (Bir-kot-ghwandai), Swāt (Callieri 2006: 60).

The Italian Archaeological Mission has established two important records; first it is the first Italian Mission to work outside the Mediterranean and Near East (with the exception of the East African Italian territories), and second that it is after the Delegation Archeologique François in Afghanistan (DAFA), the longest standing foreign mission in Southeast Asia. With the establishment of Italian Archaeological Mission, extended its activity beyond the areas in which it had been traditionally involved, not only by means of field activities, but indeed by opening up a line of study (Olivieri 2006: 23).

The Italian Archaeological Mission carried out extensive archaeological researches at a number of sites from Proto-historic to Islamic period, in the different areas of Khyber Pakhtunkhwa especially in Swat Valley such as ; Butkara-I (1956-62, 1978-79, 1981), Udegram (1956-62, 1994-96), Loebanr (1966-68, 1976 &1989), Katelai, (1962,1963,1965 &1966), Barama (1963), Gogdara (1958,1959,1960 &1966), Tarike, Buner (1967), Lalatai, Buner (1967), Pulanr, Buner (1967), Sogalai, Buner (1967), Galigai (1967,1968,1975 & 1980), Lilowani (1980) Noghormur (1966,1968), Aligrama (1972-80), Saidu Sharif(1978-81), Barikot (1978-81, 1990-96, 2000-2004) (Ibid. 23).

The Italian Archaeological Mission's project "Archaeological Map of the Swāt Valley (AMSV)" (2000-2012) had however, added new important data about the Swāt Valley. The first Phase of the project was started in 2000 with the reconnaissance of the Kandak and right Lower Kotah Valleys followed in 2004 by exploration at Upper Kandak, Middle Kotah and Najigram valleys. The Upper Kotah and Karakar Valley were survey in 2005 and 2006 under the Second Phase of the project. During the year 2000- 2006, 400 new sites have been documented which belong to pre-historic, proto-historic, pre-Buddhist or non-Buddhist sites. However, more than 100 Rock Carvings and 49 Painted Shelters are worth mentioning. Under this project, during 2006-07 researches were carried out in Saidu Sharif and Jambil Valley. The targeted research areas (2007-12) were included Ugad and Puran Valleys, the Italian Archaeological Mission's programme entitled "The Archaeology Community Tourism–Field School Project (ACT)" was initiated in 2010 which carried out research activities (2011-14), including excavations at the Buddhist sites of Bir-kot Ghwandai, Gumbat, Balo kale, Amluk Dara (Barikot), Swat (Olivieri 2014).

Archaeological Explorations / Excavations by the Pakistani Institutions:

The Department of Archaeology, University of Peshāwar since its inception had contributed a lot in the archaeological excavations carried out independently and in close collaboration with the collaboration of Federal Department of Archaeology and Museums. The most important activities include; excavations at Timargarha, Dir (1963-64), Andan Dheri (1966), Sanghao Cave (1965), Damkot (1968), Chatpat, District Dir (1968), Gor Khattree, Peshawar, Sheikhan Dheri, Charsada, Kashmir Smast, Mardan, Gamla, D.I Khan (1971), Khanpur Cave (1975), Rehman Dheri (1976-79), Butkara-III (1982-85), Marjanai, Swāt (1982), Loebanr (1985), Shinisha (1989 & 1990).

The Department of Archaeology, Peshawar University started a detailed survey project "Gandhāra Archaeological Project" in 1980 for the safe guarding of cultural heritage. Surveys were carried out in Swāt, Buner and Dir Valley under the direction of F.A Durrani, Farid Khan, and Abdul Rahman. During this survey 50 Buddhist sites were reported in Buner, Bajaur, Dir and Swāt. The Department of Archaeology, University of Peshawar also carried out salvage operation in Malakand Division at Buddhist establishments of Tirat in Madyan Tehsil and Mat Kani, Parai, Baghrajai and Churg Patai (1982), Gumbaaatai and Guligram in Charbagh Tehsil (1985) and Pataka Khimdara in Tehsil Kabal (1986). Besides, Farooq Swāti conducted archaeological survey on the right bank of Swāt River and mapped 28 new Buddhist sites (1995). A survey in Shangla and SwātValley was carried out (2001) by Farooq Swati, M. Naeem Bacha and Jehan Mulk and recorded 56 archaeological sites, monuments and rock carvings. Badshah Sardar from Allama Iqbal Open University carried out extensive research study in "Rock Art in Swāt" which has added another valuable contribution about the documentation of Rock Art in Swāt. While the research work of Nasim Khan is another major contribution on the Buddhist Paintings in Gandhāra.

A recent major contribution has been made by a team of Taxila Institute of Asian Civilizations, Quaid-i-Azam University Islamabad under the direction of Prof. Dr. Muhammad Ashraf Khan, by documenting archaeological remains and monuments in Rawalpindi and Islamabad Districts (2009-10). In this survey, the team documented 130 very important archaeological sites and monuments pertaining to pre-historic, historic, Buddhist, Muslim, Sikh and British Period in Pakistan (Khan, Ashraf 2010).

The archaeological explorations and excavations in the different areas of Sindh such as; Lakheean-jo-Daro, Rohri Hills, Thar Desert etc. were conducted by the Department of Archaeology, Shah Abdul Latif University, Khairpur, Sindh which added new and important data about the rich cultural heritage of the Sindh region. Similarly, the important excavations carried out by Provincial Department of Archaeology, Khyber Pakhtunkhwa include; Hund Fort, Rehman Dheri, the Safe Abad site in Mardan and the Shalkandai site in the district of Dir and other sites are worth mentioning.

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Spread of Buddhism from Taxila to China through Silk Road

Muhammad Ilyas Bhatti*

INTRODUCTION

It is generally admitted that there is a relationship between the physical environment and human history. This may be particularly true of Asiatic history, where the climate may have set the nomadic peoples of High Asia moving with a purpose, more extensive than an annual search for pasture. People used mountain passes along the watercourses for travelling from one end to the other. The pathways were gradually converted into regular roads, highways and trade routes. When the economy of the region boomed and there was political stability, proselytizing activity increased, which made some routes not only popular but also sanctimonious with sites of pilgrimage developing gradually. Along regular trade routes and caravan roads cites, and towns rose and fell as the traffic increased or decreased, and businesses prospered or declined. Cities at the junction of different routes were affected by changes in the alignments of routes and shifting of inter junctions. This happened with Taxila, Pushkalavati (modern Charsada) and Begram, cities that owed their existence and initial prosperity to their location at the meeting point of more than one ancient route. Trade routes where communication was easier with the big cites were suitable places for new settlements to come up and for different ideas to mingle.

In ancient times routes and roads between two regions were the best means of communication between their people. They not only connected various peoples but also helped transport ideas, faiths, customs, and habits etc. of one region to another, and in this process helped evolve new cultures and civilizations, new arts and crafts. When these routes turned into arteries of commerce and trade, the socio-economic conditions of the regions falling on these routes were also affected. The commodities and products of one region were purchased in its marts and were sold in bazaars of other countries and vice versa. The producers as well as the intermediaries also prospered. Thus the

* Assistant Professor, Quaid-i-Azam University, Islamabad.

regions and people involved in such transactions prospered both economically as well as socially. Settlements falling on commonly frequented and prosperous routes changed their fortunes rapidly. Temporary halting stations often turned into villages, villages into towns, towns into cities and cities into cosmopolitan metropolis of trade and commerce. But when the gear was set in reverse, everything turned to take a turn about position. The causes — natural or man-made, of rise and fall of such civic centres may vary from time to time, region to region and place to place — epidemics, earthquakes, recurring floods, invasions and above all changes in the alignment of routes. The last cause always proved more deeper routed and of lasting effect because the 'man', his intentions and will work more effectively in this direction.

Takshasila or Taxila, as Greeks had named it, became a great centre of education, combining the learning of the east and the west, where princes and others from far and near came to receive training in philosophy, medicine, languages, archery, and military science.[1] There was also a direct northern route from Takshasila to China and Central Asia through Mansehra and the upper Indus valley. This newly discovered route, along which the modern Karakorum Highway (silk road) has been built, has presented a new perspective of the spread of Buddhism to the east from Taxila. What has been called Northern Buddhism finds its link along this path, and such a link can be traced to the city of Taxila. It is for this reason that the Chinese pilgrims proceeded to this city. The great number of monasteries in the Taxila valley should be understood in the context of the great influence that the monks exerted along this northern route. As long as this connection was maintained, Buddhism prospered in Taxila and continued to contribute towards the development of Gandhara art.[2]

Archaeological records show that the history of Taxila starts from 6th century BCE when it became a part of Achaemenid Empire of Persia. In 326 BCE, Taxila was conquered by Alexander the Great. The Greeks pronounced Taxila as *"The greatest of all the cities"* in this part of the Globe. Subsequently, Taxila remained under the control of the Mauryans, the Bactrian Greeks, Scythians, Parthians, Kushanas and Sassanians, till its final devastation by the White Huns in the 5th century CE.

Taxila is 40 km from Islamabad, the capital of Pakistan; Taxila can be very conveniently reached by public and private transport. Ancient Taxila, and the

[1] B. Prakash, pp.141-42.

[2] Dani, p. 17.

modem one too, is located at the southern tip of the 850 Km-long New Karakoram Highway, KKH. This city had been a meeting place for people and cultures of three worlds—India, Western Asia and Central Asia. Excavated remains of Taxila include three ancient city sites (Bhir Mound, Sirkap and Sirsukh), temples, stupas, monasteries, and various types of antiquities and works of art from the Neolithic period to the 500 AD.

Religious activities in Taxila

It is commonly perceived that archaeological discoveries at Taxila preserve and present us with a monolithic society as far as religious beliefs are concerned. This perception revolves around Mahayana Buddhism.[1] Although Buddhism was introduced to Taxila as early as Maurya times, it was not until the advent of the Kushans that the region assumed an important place in the history of Buddhism and its art. Although not specifically associated with the Buddha's mortal career, Taxila gained a special renown for sanctity through the assignment of many of the locales of earlier incarnations — the renunciations and martyrdoms of the Jātaka tales — to sites in this region. There is no reason to suppose that the first Kushan sovereigns, Kujula and Wima Kadphises, were even Buddhists. But their successor, Kanishka, is remembered as one of the great patrons of the religion, a second Asoka, who turned Taxila and Gandhara into a veritable holy land of Buddhism.[2] Kanishka convened the Fourth Buddhist Council, and it is generally believed that the Buddhism of the Great Vehicle made its appearance under his reign and patronage.

The reign of Kanishka is famous for its Buddhist art as it saw the beginning of the popular synthetic representation of the figure of Buddha and several of his stories carved in panels in high relief in Gandhara, Mathura and elsewhere. The popularity of Gandhara art in Gandhara proper, Afghanistan and Central Asia, suggests the existence of a prosperous Buddhist community in the region. The significance of Kushan history lies in the fact that their capital was Peshawar, in the heart of Gandhara. The Kushans were responsible for peace and prosperity, and the development of trade became possible only because of improved road conditions and safe travelling. The traders, who came from Central Asia, China

[1] Dar, *Journal of Asian Civilizations,* Vol., XXX, No. 2, Dec., 2007. p. 5.

[2] B. Rowland Jr., 1960. p. 2.

and western Asia to the heart of India, used the passes in the mountains that are now part of Pakistan. The Kushans subjugated the area of Hindu Kush into Kabul, northern part of Pakistan, north-western India and Gandhara. Trade between China, India, Parthia and the Roman Empire was under the control of Kushans, which provided an ideal medium for the further spread of Buddhism.

The first anthropomorphic representation of the Great Teacher was probably related to the emergence of the devotional sects of Buddhism and their demand for the portrayal of the object of worship in an accessible human form in place of the entirely symbolic portrayals of the master in the art of early Hinayāna Buddhism. First of all, Mahayana Buddhism in Taxila covers only the last three or four hundred years of its history, which begins only in the second century CE. What was the religion of the people and that of the rulers of Taxila prior to the advent of Kanishka's reign? It was certainly not the Mahayana school of Buddhism. Nor it was Hinayana Buddhism alone. Even during the post-Kanishka period when the Mahayana doctrine was no doubt dominant there were people who adhered to several other religions and expressed other faiths and practiced other beliefs. This includes even belief in dogma other than Mahayana Buddhism. In order to know the truth, the whole evidence-archaeological, literary and epigraphically - needs to be re-examined and a new socio-religious profile of the people of this valley (from 5th century BCE to about 500 CE) re-constructed.

All scholars agree that the early history of Taxila begins with extension of the Achaemenian rule to Gandhara and Taxila in the fifth century BCE and extends up to 324 before Christian era when Alexander the Great arrived at Taxila. Two religious strains are quite prominent i.e. Hinduism and Jainism. Scholars have also pointed out the existence of a Zoroastrian community at Taxila by their identification of a Zoroastrian temple in the Taxila but, there is no sign of Buddhism in the society of Taxila before Asoka.

Before Buddhism in the region of Taxila, traces of Hinduism also unearthed by the archaeologists. It was the first home of the Aryans, and it was here that Vaiśapāyana recounted the tales of the *Mahābhārata* to King Janamejaya[1]. Hinduism at Taxila is also attested by the discovery of a huge building (180' x 170') with pillared foundation at Bhir Mound that has been identified as the

[1] Buddha Prakash, 1976, p. 133.

earliest Hindu temple ever constructed.[1] Terracotta votive tanks, par excellence, belong to Hinduism. But at Taxila, some 15 of these tanks have been found only at two sites namely Bhir Mound and Sirkap, either as purely Hindu objects or in association with Jaina monuments but never with Buddhist stupas[2]. Association of Hindu votive tanks with Jaina stupas in Blocks A and K at Sirkap has been considered as contamination of the two religions[3]. We know from many passages in literature that Taxila was an important centre of Jainism with numerous monuments of that faith in and around the city, and it can hardly be doubted that some of the stupas unearthed at Sirkap and in the neighbourhood belong to Jainism,

Buddhism in Taxila

When Asoka embraced the Buddhism religion after Kalinga war in c. 262 BCE, it become the dominant religion of the whole Maurya empire and after two years later he became a member of Buddhist Order (*Sangha).* Asoka issued a series of Edicts and caused them to be engraved on the face of conspicuous rocks and on pillars of stone, setting forth the principles of religion and ethic which he judged most serviceable. For all intents and purposes, it appears to have been introduced here by Asoka (274-232 BCE). Asoka, who according to Tibetan tradition, died at Taxila, was succeeded by his son Kunala (c. 237-229 BCE).[4] There are two monuments at Taxila that belong to his period, namely, the Dharmarajika Stupa (Fig.1) and the Aramaic inscription that confirmed that it is a partially preserved text in a word-by-word translation of Asoka's Rock Edict at Shahbazgarhi.[5] The Dharmarajika stupa at Taxila built by Asoka confirms the presence of institutionalized Buddhism in this city. This stupa had been built and rebuilt several times before it was abandoned in the seventh century CE.

[1] Marshall, 1951, I, p. 98, 100 and Marshall 1960, p. 56.

[2] Marshall, 1951, II, pp. 463-6.

[3] Ibid., II, 1951, p. 466.

[4] Marshall, 1951, I, p. 4.

[5] Humbach. 1978, pp. 87-98; Dar. 1984, pp. 199-211.

Permanent monasteries came into existence only in the first and second centuries of Common Era.[1]

The Greek king Menander was converted to Buddhism and became the disciple of a certain elder named Nagasena as mentioned in Milindapanha[2]. He was the `Saviour` of the Buddhists and of all who stood for the old Maurya against the usurper Pushyamitra. It is historical fact that Buddha himself never visited this part of the country. However, Taxila became a great centre of Buddhist learning and activities, the area became absolutely holy and Buddhist religion.[3] Many stories were invented to show Buddha's association with Taxila both in his earlier and historical lives. Many Jataka tales allude to these connections.[4]

Numerous inscriptions discovered at Taxila are expected to form an important study for building a Buddhist profile of the people of Taxila. Sten Konow recorded some 96 Kharosthi inscriptions in ancient Gandhara including some from Taxila. The record of Taxila was updated by Marshall in 1951.[5] Suffice it to say that almost every inscription records some donation or a pious act. The texts of these inscriptions record digging of wells, tanks and drinking sheds along the road side, donations of a*rama* or groves, construction of enclosures, foundation of a *yasthi* or staff and enclosure, some religious buildings, dedication of stupas and donations of miscellaneous objects such as ladles, lamps, jars, plates, dishes, brackets, images, Buddhist relics, etc. These inscriptions are donated either by individuals or a group of joint-family members and even by some associations. The purpose of these donations was alms-giving and *puja* (worship) and earning merit *(punya).*[6] Out of 96 Kharoshthi inscriptions

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[1] Ibid., I, p. 23.

[2] Ibid., I, p. 33.

[3] Dar, 1998, p. 10.

[4] For references of Taxila in *Jataka Tales* see various stories in "*Jataka"* (six volumes edited by V. Fausboll, published in London from 1877 to 1897). E. B. Cowell, *The Jataka,* translated by Robert Chalmer, vol. I, Ist ed. (Cambridge: 1895, rep. London: 1957).

[5] Marshall, 1951, I, II.

[6] Konow, 1929, p. cxvi.

listed by Konow, only 21 pertain to the period of Kaniska and afterwards. In this respect we are better informed about epigraphical evidence from Taxila. In general, longer texts are written on birch-bark sheets, longer dedicatory inscriptions are found on silver and copper sheets as well on stone slabs. The greater numbers of inscriptions from Taxila are in Kharoshthi. Almost all-important ones pertain to Buddhist dedications. The one belonging to the Kusan period is the well-known Silver Scroll Inscription dated to 78 CE for the construction of a Bodhisattva-chapel at Dharmarajika Stupa at Takhshasila.

Prominent Scholars from ancient Taxila

Taxila was one of the two great educational centers in South Asia – the other being Nalinda in Bihar province. The University of Takshasila, however, was famous for its teaching in science subjects, particularly the science of medicine.[1] This university produced some of the greatest names in the ancient history of the country. Among them Jivaka, the great physician of Rajagriha, was educated at Taxila.[2] Jivaka, son of Raja Bimbisara, was a contemporary and great companion of Buddha. He donated the famous Jetvana Garden in Rajagriha to Buddha. Alexander of Macedon,[3] Susima, son of Bindusara and elder brother of Asoka,[4] Asoka himself,[5] and his son Kunala,[6] had lived in Taxila. Among other names associated with Taxila are: Kumaralabhda — the founder of

[1] R. N. Metha, 1939. pp. 299-505.

[2] R. R. P. Bigandet, 1919, pp. 195-99.

[3] Arrian, Vol. 8.2, and Vol. 3.6.

[4] Cunningham, p. 106.

[5] Thomas Watters, p. 241, According to a Tibetan tradition, Asoka died at Taxila . But, this is not certain. However, he did rule at Taxila as viceroy under his father Bindusra and later on as emperor he built here at least one large stupa enshrining the relics of Buddha. See *Taxila I.* p. 256 and pp. 234-235.

[6] Thomas Watters, op. cit. Kunala was viceroy of Taxila where he lost his eye-sight through the beguile of his step mother. Here, Hieun Tsang saw one stupa consecrated to the memory of this prince: *Taxila I.* pp. 245-246 and *II.* pp. 100 and 295.

Sautrantika School,[1] Ghosha — a contemporary of Asoka and a great physician and an oculist or a specialist in eye-surgery,[2] Brahmadatta,[3] Setaketu,[4] etc. It is also believed that the famous grammarian Panini[5] and scholar Patanjali used to teach at Taxila in the 6th or 5th cent. B.C.; the illustrious Viyas lived in this city and composed his renowned epic poem *Mahabharta* here; Uddalika Aruni — the narrator of *Upanishda* and his son Suvita Keeto were educated at Taxila,[6] and Jotipala son of Purohit of Raja of Kashi obtained his military education in the same city and later became the commander-in-chief of the king. Even Chandra Gupta Maurya and his Minister Kautilya — the author of *Arthashastra,* and Prasenajit, the enlightened Raja of Koshala, are believed to have been educated in the university of the same city.[7] Prasenajit was also a contemporary of Buddha.[8] Somadeva, author of Katha Sarit "Sagara, a work dated in 1070 A.D., mentions a king named Kalinjadatta, the ruler of Takshasila in ancient times. He was a distinguished Buddhist as were his subjects and his city shining with splendid Buddhist temples densely crowded together. His queen was named

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[1] The famous Sastra, master and foudner of Sautrantika School whose name in Chinese appears as Kou-mo-lo-lo-to: *Taxila I,* p. 245 or Tung-shou (Ibid., II*:* pp. 286-89.

[2] Probably he is the same Ghosha who restore the Kunala's eye-sight at Taxila: Ibid., I, P. 245. In Buddhist literature he is regarded as an *arhat.*

[3] According to Rajovada Jataka*,* Brahmadatta was a future Buddha born as a Prince of Benares. At the age of 16, he went to Takshasila for purpose fo education and became accomplished in all arts, Rhys Davids. Buddhist Biret Stories, Vol. I. London: 1880. pp. xxii.

[4] An ex-student of Taxila University. See Ratilal N Mehta. op. cit. 305.

[5] Buddha Parkash op. cit. p. 141: "Panini and Kautilya two master-minds of ancient times, were also brought up in the academic traditions of Taksasila. Ibid, pp. 141 and 179.

[6] Buddha Parkash op. cit. p.12 and Sibt-e-Hasan, Paksitan main Tahzeeb ka irtiqa. Karachi: 1975. pp. 48, 99, 103, 104 a, Nos. 112 and 120.

[7] Buddha Parkash op. cit. pp 140-141, 170-172, 182-183 and Sibt-e-Hasan, op. cit., pp. 110-112. We learn from Pali chronicles that Kautilya, also known as Chanakya, was a resident of Takshasila. Buddha Parkash, op. cit., pp. 179-180, 188.

[8] Ibid., op. cit. p. 141.

Taradatta. The King had a beautiful daughter named Kalingasasena. On her pursuits, Somadeva devotes almost one full volume of his Katha Sarit Sagara.[1]

Buddhist Monks and travellers from China

Chinese travellers, who tried to provide a religious background to the name of Takshasila. Fa-Hien (Fa Xian), a Chinese traveller who visited Taxila in 400 A.D., mentions the city under the name of Chou-Cha-Shi-Lo and gives its meaning as "Cut-off Head".[2] Hieun Tsang[3] (Xuan Zang) mentions the name of the city as Ta-Cha-Shi-Lo which has approximately the same meaning. It appears that, due to some difficulty of phonetics, the Chinese travellers heard 'sila' (city) as 'sira' (head) and thus the original Takkasila sounded as Takkasira, to the pious Buddihist pilgrims, and translated as "Cut-off Head". Fa-Hien interpreted this name with the help of a Buddhist Jataka. According to him Buddha, in one of his erstwhile lives, was born at Taxila as Pusa or Chandraprabha (Moon-faced). In his youth he, as an act of charity, fed a hungry lion or Devadatta, his arch enemy. So, the locality was christened as Takkasira or "Cut-off Head". Cunningham[4] believes that Jandial Stupa (later proved to be a Greek Temple) is the place where Buddha cut-off his throat. Marshall,[5] on the other hand, opines that this *sirshadanam* or *sirdan* (the head-sacrifice took place at the site of Bhallar Stupa in the valley of Taxila.

Silk Road and Buddhism

Silk Road came into existence during the first century before Christian Era. China consolidated this road to the Western world and India, both through direct settlements in the area of the Trim Basin and diplomatic relations with the countries of the Dayuan, Parthians and Bactrians further west. The Buddhist faith

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[1] N.M. Pinzer, 1925.

[2] H. A. Giles, 1923. p. 12., also quoted by Thomas Watters, op. cit. 1, pp 240-241.

[3] Thomas Watters, loc. cit.

[4] Cunningham, 1924, pp. 18, 112-113 and p. 117.

[5] Marshall, 1960, p. 178.

and the Greco-Buddhist culture started to travel eastward along the Silk Road, all-pervading in China from around second century before Christian era.

The majority of the Silk Road routes passed through the Eurasian Steppe, whose nomadic people were participants and mediators in its economic and cultural exchanges. In ancient and medieval times, the Silk Road was of great importance to the transport of peoples, goods, and ideas between the East and the West. A vast network of trade routes, it connected the diverse geographies and populations of China, the Eurasian Steppe, Central Asia, India, Western Asia, and Europe. Although its main use was for importing silk from China, traders moving in the opposite direction carried to China jewellery, glassware, and other exotic goods from the Mediterranean, jade from Khotan, and horses and furs from the nomads of the Steppe. In both directions, technology and ideologies were transmitted. The Silk Road brought together the achievements of the different peoples of Eurasia to advance the Old World as a whole.

Buddhism was not an indigenous religion of China. Missionaries and pilgrims began to travel between China, Central Asia and India in 2nd century BCE. Chang Ch'ien, an ambassador of the Chinese emperor, Wu Ti, on his return from Ta-hsia (Fergana) in the 2nd century BC, heard of a country named Tien-chu (India) and their Buddhist teaching, which was making such headway and reported concerning it to his master. A few years later the generals of Wu Ti captured a gold image of the Buddha which the emperor set up in his palace and worshiped, but he took no further steps.

An emperor of the Later Han dynasty, Ming-Ti, saw in a dream a large golden image with a halo hovering above his palace. His advisers, some of whom were no doubt already favourable to the new religion, interpreted the image of the dream to be that of Buddha, the great sage of India, who was inviting his devotion. Following their advice, the emperor sent a delegation to study into Buddhism. It brought back two Indian monks, who helped translate a few texts into Chinese, and a quantity of Buddhist archetypal. These were carried on a white horse and so the monastery which the emperor built for the monks and those who came after them was called the White Horse Monastery. According to Chinese historians, Buddhism was officially recognized in China as much as 50 years prior to this event. This dream story is worth repeating because it goes to show that Buddhism was not only known at an early date but was favoured at the court of China.

Buddhist monks, from India (Taxila), named She-mo-teng and Chu-fa-lan went to preach Buddhism in China through silk road. This was the first time that China had Buddhist monks and their ways of worship. From then on, the Buddhist community grew continuously. They introduced the sacred books, texts and most importantly the examples of Buddhist art, never before seen in China. Buddhist temple was set up in 2nd century CE at Loyang and began the long work of the translation of the Buddhist scriptures into the Chinese language.

One of the strong dynasties of this period, the Northern Wei (386-535 A. D.), was distinctly loyal to Buddhism. During its continuance Buddhism prospered greatly. Although Chinese were not permitted to become monks until 335 A. D., still Buddhism made rapid advances and in the fourth century, when that restriction was removed, about nine-tenths of the people of north-western China had become Buddhists. Since then Buddhism has been an established factor in Chinese life. Buddhism in China reached its apex during the Sui and Tang dynasties (581-907). Buddhism was popular during the Sui dynasty, spreading from India through Afghanistan into China during the Late Han period. Buddhism gained prominence during the period, when central political control was limited. Buddhism created a unifying cultural force that encouraged the people out of war and into the Sui Dynasty. In many ways, Buddhism was responsible for the rebirth of culture in China under the Sui Dynasty.

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Fresh Numismatic Evidence from Takht-e-Bahi

M. H. Khan Khattak
Gul Rahim Khan
Ehsan Javed

Abstract:

Coins have played a great role in identification of dynasties and rulers and dating of historical sites and monuments. Dating historical sites in absence of documentary evidence(s) has been one of the major problems. Though coinage traditions have existed in our region for two thousand five hundred years or so, yet due to lack of numismatic evidence from many Buddhist historical sites including the famous Takht-i-Bahi monastery, such sites could not be precisely dated and whatever dates have been assigned to different constructional periods are mostly based on hypothetical work.

A few eroded coins[1] were found from Takht-i-Bahi during archaeological excavations conducted by H. Hargreaves in 2010-11, which could not be deciphered except only two stated to be belonging to Appollodotus-II[2] of the Indo-Greek period. Since then no numismatic evidence came from this important Buddhist site. However, during clearance process in 2017-18, three copper coins were found from the site, which have been deciphered now.

Through this research we are trying to establish dating of Takht-i-Bahi through the available numismatic evidence by linking this evidence with other available epigraphical and recorded sources.

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[1] No exact numbers of the coins could be traced even from the record of Peshawar Museum.

[2] M. A. Shakoor had on the basis of report of H. Hargreaves referred to one copper coin of Apollodotus. However, the Catalogue of the Indo-Greek and Scytho-Parthian periods coins published by the Directorate of Archaeology & Museums, Government of Khyber Pakhtunkhwa in Frontier Archaeology Vol. IV (2006) mentions two copper coins of Apollodotus-II bearing Accession Nos. PM-10161 and PM-10162 from Hargreaves excavations of 2011. It is possible that another coin was also deciphered at some stage by the Museum authorities.

Keywords: Gandhara, Buddhism, Takht-i-Bahi, Monastery, Coins.

Problem relating to dating of Takht-i-Bahi

The dating problem at Takht-i-Bahi emanated right from the beginning as expressed by many scholars:

- Archaeological excavations and research were undertaken by non-professionals and in non-professional ways detriment for future scientific digging and with least regard for scientific information (Dar 1998: 71-118).

- The archaeological activities carried out did not offer scholars firm data on their historical and cultural frame' (Callieri 2008: 58-63).

- The earliest excavators including D.B. Spooner and H. Hargreaves were not able to construct a chronological sequence for the site (Sehrai 2001: 58-59).

- Proper records and inventories are lacking for the large number of sculptures unearthed from the site and presently stored in Peshawar or museums abroad, as no scientific records were kept during excavation. The excavators did not place the site in a safe chronological framework (Rehman 1997: 10-12).

- The pottery received even lesser attention than sculptures. It has been stored unceremoniously, without taking pain to label or record it properly. The pottery, if recorded decorously, would have proved to be significant vinculum in abridging the missing cultural links of the site, and to place it in a scientific chronological framework. (Rehman 1997: 11-12)

The most shocking aspect of the whole episode is that no excavations were conducted after partition till 2002 and the excavations of colonial period were concentrated on one cluster of courtyard monasteries found on lower elevation of the hill making less than one percent of the entire structures spread over the entire hill (Rehman 1997: 10-12). There has been no documentation of additional and scattered sites and the so-called scientific excavations of both Spooner and Hargreaves have never been published, further complicating the dating issues. Then during preservation and restoration works by the then Public Works Department from 1920 to 1927, no professional archaeologist was practically associated and thus vital evidence that might have helped in proper dating of the different portions of the main complex was probably lost. Collecting coins from

the excavations and recording them was probably not included in priorities of the excavators, as they appeared mainly interested in collection of sculptures only. Further, the dating of both Sehrai and Dani have already been questioned by Faccenna (1995: 143-163; Li 2012: 24-28 and Khattak (2019:81-105).

After independence, the Federal Department of Archaeology and Museums did not appreciate the importance of archaeological researches at Takht-i-Bahi for many reasons including the following two very important reasons:

(i) The important monastery and highly important structures spread over many kilometers on the hill were never properly dated. Only this important issue should have attracted attention of the Department;

(ii) 80% of the entire area containing Buddhist structures on top and terraces of the Paja Hill range housing Takht-i-Bahi remains remained outside the actual ambit of archaeological excavations and researches. Ignoring 80% of the area containing important structures was certainly very disappointing.

Another, very disappointing episode is that the Department of Archaeology and Museums, Government of Pakistan failed to publish the result of the excavations at the site from 2002 to 2004 conducted after 55 years of our independence. The Directorate of Archaeology and Museums, Government of Khyber Pakhtunkhwa can equally be blamed as it also failed to publish the results of the excavations conducted by it in 2012. By not publishing the vital reports, very important artefacts found during 2002-2004 and 2012 are still hidden from the archaeologists, art historians and researchers and shall remain out of reach of the researchers till these objects are published.[1]

Previous Epigraphic and Numismatic Evidences from Takht-i-Bahi

We do have a few inscriptional or epigraphical evidences from Takht-i-Bahi (Konow 1929: 62-66), but unfortunately, they have not helped in dating even the main religious complex. Ihsan H. Nadiem also referred to another

[1] Khattak, one of the authors of this paper has already approached the Directorate of Archaeology, Khyber Pakhtunkhwa for permission to study the unpublished artefacts fom Takht-i-Bahi and to publish the same with complete descriptions. Permission is still awaited.

Kharoṣṭhī inscription currently in Taxila Museum (Nadiem 1989: 209-216) but this also did not help in identification of name of the Monastery or the precise date(s). During excavations from 2002 to 2005 at Takht-i-Bāhī an ornamented stone bowl was found in fragmentary condition comprising four pieces, which were restored (Fig. 1). contains Kharoṣṭhī inscriptions on the inner and outer sides, but this discovery has also not helped in solving the mystery (Falk 2009: 68-72 & Khattak 2019:51-105)

The site has also yielded no sufficient numismatic evidence to help us date different parts of the huge complex. According to Shakoor (1946: 11-12), 'The coins of the rulers of these dynasties (Indo-Parthian, Kushans and the Little Kushans) are however rarely found in the ruins at Takht-i-Bahi, for a religious establishment of this type is the least prolific of such finds. Yet the surrounding country has yielded a large number of these.' He further states, 'A few corroded copper coins, among which one of the Indo-Greek king Apollodotus is of particular interest; a few fragments of sculptures and some pieces of black and red pottery inscribed in Kharoshti... and with a human figure... respectively, were found in this area (so-called underground cells) in the course of excavations' (Shakoor 1946: 26). The most disappointing aspect of the few coins is that only two of them could be deciphered, while the remaining coins were found in corroded form beyond identification.

Khattak (2019: 81-105), while dealing at length with this discovery mentions that this discovery has opened yet another debate. After posing two main questions i.e. (i) How did these coins reach the site of Takht-i-Bāhī?, and (ii) Did some kind of buildings already exist here during the second or the first centuries BC?, He opines that the presence of these coins suggests that there was some kind of human activity at this place during the Indo-Greek period (second to first centuries BC) and there must have been some Buddhist religious buildings here. It does not seem likely that the coins came here after a gap of seven or eight centuries, when the rule of the Indo-Scythians and Indo-Parthians, Kushans, Sassanians, Kushano-Sassanians, and Huns had passed.

During the process of removal of debris from the earlier excavations for conservation activities, between August 2017 and February 2018, from the ten blocks of secular buildings on the west and south-west of the main monastic complex of Takht-i-Bāhī (Figure 2) across the dry water channel built on a relatively narrow ridge extending from the southern top of the hill down towards

north, we found amongst other objects, three copper coins. These coins were not obviously from proper archaeological excavations but were found from the debris left on the site from the archaeological excavations undertaken during 2002 to 2004. Proper archaeological excavations could have enhanced the possibility of finding more coins of different eras from the area, but there was no financial provision or support for undertaking archaeological excavations. Furthermore such coins might have been washed away over the centuries by strong water currents during heavy rains, down to the plains on the north, which are now occupied by modern buildings.

Before dealing with the present discovery of three copper coins, let us review the discovery of a few eroded coins that were found from Takht-i-Bahi during archaeological excavations conducted by H. Hargreaves in 2010-11. As per accounts of Shakoor (1946: 11-26) only one coin was identified as to Appollodotus of the Indo-Greek period. Since then no numismatic evidence came from this important Buddhist site, except the three copper coin found during clearance process in 2017-18. We tried to locate the coins referred to by Shakoor in Peshawar Museum, but it was not possible due to seizure of relevant records by the National Accountability Bureau in connection with some investigations. However, we found published records of two copper coins from the 2010-11 excavations in Vol. IV of Frontier Archaeology (Fig. 3) (Ali, Ihsan et.al. 2006;1-77). The two coins have been described as under:

Apollodotus-II (80-85 BC)	
Type	Bull and Tripod
Accession Number	PM_10161
Obverse	Apollo standing on right. Greek alphabets illegible.  Obverse

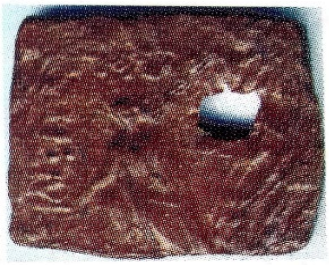
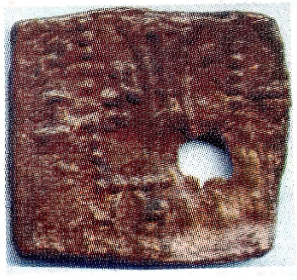
Reverse	Tripod  Reverse
Takht-i-Bahi excavations 1911	
Published before:	Punjab Museum Catalogue (PMC), Lahore Pl.IV.307 (P.43.300) British Museum Catalogue (BMC) Pl. X.9 (P.39)
Apollodotus-II (80-85 BC)	
Type	Bull and Tripod
Accession Number	PM_10162
Obverse	Apollo standing on right. Greek alphabets illegible.  Obverse
Reverse	Tripod (Kharoshti script illegible)  Reverse
Takht-i-Bahi excavations 1911	
Published before:	Punjab Museum Catalogue (PMC), Lahore Pl.V.344 (P.48.350)

Fig. 3: The above details are published at page 69 of Frontier Archaeology Vol.IV (2006)

Shakoor had mentioned only copper coin from Takht-i-Bahi out of many to be belonging to Apollodotus[1]. He had obviously not mentioned the precise name and period of the Indo-Greek king. However, the published record in the Frontier Archaeology Vol. IV of 2006 confirms two copper coins from the archaeological excavations of 1911 to have been properly deciphered and going to the period of Apollodotus-II (ca.80-85/8-65). Setsuko CORNISH has given altogether different information on the numismatic evidence from Takht-i-Bahi (Cornish 1995: 109-134). According to her "there are a few numismatic finds in Takht-i-Bahi. However, there is one coin excavated in the time of the Hargreaves excavations1910-11". He gives the following information, which is very confusing:

"Apollodotus-I (Indo-Greek ruler c.175 B.C.) coin is recorded. On my visit to the site in August 1993 the following coins were shown as from Takht-i-Bahi by the Keeper of the site. J. Cribb (numismatics section, British Museum) gave the dates, year one of Kanasihka as AD 100.

Indo-Scythian	Azes (Zeus)	c. BC 57-10
Indo-Parthian	? (Zeus)	c. AD 50-60
Kushan Vima Kadphises	(Siva)	c. AD 80-100
Kanishka I	(Nama)	c. AD 100-128
Huvishka	(Mao)	c. AD 128-164
Vasudeva I	(Siva)	c. AD 164 – 200

I hope to research further into the coinage of Takht-i-Bahi."

We are not inclined to take into consideration the above information given by Setsuko CORNISH. Elizabeth Errington states that "only a single coin of Apollodotus was excavated from the lower level vaulted cambers at Takht-i-Bahi. This suggests that it may have been one of the earliest Buddhist monasteries established in this region, but the excavators do not specify whether Apollodotus I (c. 180-160 BC) or II (c.80-65 BC)" (Errington 1999-2000: 191-210). According to her coins were in common use as currency in the Peshawar Valley and other regions from the third century onwards, and the shortage of contemporary coin evidence at the Buddhist sites should rather be seen as an indication that only a few of the Gandhara monasteries were founded before the first century BC (Errington 1999-2000: 191-210). While she opines that "any

[1] There were two kings by the name of Apollodotus i.e. Apollodotus-I (c. 180-160) and Apollodotus-II (c. 80-85/80-65).

first-century BC signs of Buddhist foundations are still extremely limited", she expressed surprise on the general paucity or complete ommission of Indo-Parthian coins at the Buddhist sites at Taxila. She compares religious sites of Taxila with the city site of Sirkap in term of coins found from them and states that 107 coins of Gondophares and 636 coins of Sasan were found from Sirkap as compared to very negligible coins from the religious sites.

According to our assessment, coins were found in abundance where people used to live and did business and other economic activities. Buddhist monasteries and other religious places were not the places where money could find place. Those residing in the Buddhist monasteries were people who mostly used to collect alms from the surrounding localities as major means of sustenance. Alternately, they were provided with cooked food at the monasteries and they did not need money at all. Coins can only be found if deposited as offering in votive stupas, such as Dharmarajika where the two relic deposits of only two votive stupas contained coins of the Indo-Scythian king Azes I (c.57-10 BC), while a third held a coin of his successor, Azillises, together with one of the Roman emperor August (27 BC – AD 14) and at other such religious sites at Sahri Bahlol and Ranigat (Errington 1999-2000:191-210). Alternately stray coins fallen from the visiting pilgrims could be found. Coins can also be found at monasteries with residential status.

Archaeological evidence from sites of Ranigat and Jamalgarhi also suggests that a substantial period of rebuilding took place during the reign of Huviska, or his successor, Vasudeva I, for coins of these two rulers were found inserted as offering in a later pavement level of the main stupa *pradaksinapatha* at both sites (Errington 1999-2000: 191-210). A very interesting comparison drawn by Faccenna and referred to by Errington (1999-2000: 191-210) in the following words is interesting and worth-consideration in a broader context:-

> "Comparison with the detailed excavation record of Butkara I suggests an important parallel both at Jamalgarhi and Takht-i-Bahi, namely that the debris at these two sites probably also belonged to a single stratigraphic layer, since it similarly reached high levels within enclosed areas, but was confined to a thin layer in open areas. Faccenna concluded that the uniform way in which the debris had fallen at Butkara I could have only been "caused by some violent, natural phenomenon". The same can be said for Jamalgarhi, Takht-i-Bahi and, doubtless, a number of other sites in the region. As this is an earthquake zone, it is a logical

assumption to make, it could, moreover, have happened at any time and more than once: Marshall, for example, suggests that Sirkap was destroyed in this way in the early first century AD and then rebuilt."

We are of the firm opinion that the coins found during excavations by Hargreaves in 2011 were not an ordinary discovery. Since no proper and scientific excavations were undertaken and above that no proper record of the excavations was maintained, due to which vital information concerning strata from which they were retrieved was lost. The coins were found near the so-called meditation cells and close to the main entrance to the main complex for those coming from the south i.e. from the side of Sahri Bahlol. There was every possibility of the first religious building(s) in this very area before the present buildings were constructed. The area of the finds is close to the nalla or stream draining rain water from the top and the surroundings. Keeping in view the heavy rains over the centuries, torrential rain floods might have washed some of the structures. Earthquakes also might have played their role in destroying buildings erected close to the slopes. It was from this area that the slab with inscriptions was found as described by Nadiem.

Present Numismatic Evidence

Three copper coins were found during clearance and cleaning process for facilitating preservation and restoration works on the so-called B-Block towards the west of the main Monastic complex of Takht-i-Bahi across the dried water channel. The clearance and cleaning activities were undertaken according to the requirement of the conservation team from August, 2017 to May, 2018. No archaeological excavations were allowed and no funds were provided for archaeological researches during this process. B-Block was divided into ten sub-blocks by the conservation team. Of the three coins, two coins are found from block 4 and one from block 3.

As described below[1], these coins belong to the second half of the 3rd century and beginning of the 4th century AD. Two coins (nos. 1-2) are associated to the Late Kushan period (after Kanishka II) and one (no. 3) to the Kushano-Sasanian era. The Late Kushan coins, imitations of Vasudeva I and Vasishka, are

[1] These coins were scientifically studied and deciphered by Prof. Dr. Gul Rahim, an authority on coins from our region. He teaches the numismatics at the Department of Archaeology, University of Peshawar.

known to have been issued by the Kushano-Sasanian rulers for their monetary system in the region. Both coins have standing figure of a king on the obverse and figures of Oesho and bull on the reverse. The legend on these coins is usually off flan. The third coin belongs to the Gandhara series issued by the Kushano-Sasanian rulers. It displays bust portrait of a king on the obverse and fire-altar on the reverse. But it is difficult to assign this coin to any particular ruler because headdress of the king and legend are off flan and unclear. However, due to the style, shape of coin and design of fire-altar, it has close resemblance with the coins of Peroz II. In view of this numismatic evidence, the newly excavated area at Takht-e-Bhai can be assigned to the late half of the third century AD and beginning of the 4th century AD.

No.	Description	Obverse	Reverse
1.	**Imitation of Vasudeva (after c. AD 250)** Context: Block 3, weight:5.32g, size: 19.8x3.4 mm ***Obv.*** King standing facing with head turned to left, wearing chainmail dress, right hand sacrificing over altar and holding trident in the left. ***Rev.*** Oesho standing facing, behind him bull standing to left. Reference: Khan 2010, No. F*4b		
2.	**Imitation of Vasishka (Late 3rd century)** Block 4, weight:4.69g, size: 18.8x2.9 mm ***Obv***. King standing facing as 1, wearing kaftan. ***Rev.***Oesho standing before bull as 1. Reference: Khan 2010, No. H*1a		

3. **Kushano-Sasanians (Peroz II?c AD. 303-330) [early 4thcentury]**

Block 3, weight:3.5g, size: 15.9x3.1 mm

Obv. Bust of king to right with long bun of curly hair, headdress is unclear but topped by lotus bud feature.

Rev. Fire-altar, ribbons hang from both sides.

Reference: Jongeward& Cribb 2015: nos. 2350-59

"If it were not for their coinage, very little would be known of the Kushano-Sasanians" (Carter, Martha L 1985: 215-281). Martha Carter has referred to some important but intriguing aspects of the Kushano-Sasanian coins. According to her, "though the internal development of their coin types and sequence of their rulers have been fairly well established, but new readings of coin inscriptions and the discovery of new coin types often necessitate adjustment. Nevertheless, the absolute chronology of the Kushano-Sasanian is still uncertain".

Let us search for Vasudeva of the mid-3rd century CE through pages of the history and the numismatic evidences, whose coin has been found from Takht-i-Bahi. According to Carter (1985: 215-281), "Tabari informs us that Ardashir I, after his conquests, allowed the Kushan king to remain on his throne in a vassal position. There were at least two and possible three or more Kushan Vasudevas. ……. From the evidence of Chinese, Armenian, and Arab sources, it appears probable that Ardashir I attacked and defeated the Kusan king around A.D. 230". Thus Vasudeva, who ruled as a sovereign Kushan ruler was Vasudeva I, who was dethroned by the Sasanian inroads around A.D. 230, paving way for the Kushano-Sasanian rule.

According to Carter's analysis (Carter 1985: 215-281), the Kushan ruler attacked by Ardashir was a king Vasudeva I and thereafter a second era of Kushan chronology in the main dynastic sequence began with Kanishka II, who was succeeded by Vasishka, Kanishka III, and finally by Vasudeva II. Since

Kanishka II ruled at least 17 years, it is probable that he was the Kushan king who fought Shapur I and eventually lost the Kabul Valley to him, probably sometime between AD 244 and AD 250. Gandhara, however, continued to belong to the Kushan Empire until after AD 262, and must have been ruled by both Kanishka and Vasishka.

In the words of Carter, "The problem of the number of Vasudevas in Kushan chronology has always been vexing". We are not inclined to fall into controversy generated by many researches on the subject on the identification of Vasudevas through Kushan and Kushano-Sasanian eras. We have tried to deal with reasons and show our readers the possible correct identification of the three copper coins from Takht-i-Bahi and the rulers/periods to which they belong. From above it is evident that the copper coin of Vasudeva found from Takht-i-Bahi belonged to Vasudeva II, who had ruled for a short period of time around AD 250. Vasudeva was followed by others including Visishka. Hans Loeschner has placed Vasishka to a timeframe of c.245 – c.260 (Loeschner, Hans 2007:21-24. He was defeated by Prince Peroz, a Sasanian military leader and possibly the brother of Shapur I.

Scholars believe that there has been no mention of any Sasanian king named Peroz before the fifth century in Sasanian Iran, but this name was certainly well known among princes of the early Sasanian period (Carter, Martha L 1985: 215-281). According to Martha Carter, the only important royal Peroz of whom we have any knowledge is Prince Peroz, brother of Shahpur I, but had no kingdom of his own. According to her it also appears entirely possible that Prince Peroz might have played a part in Shapur's eastern campaigns and Peroz could only have proclaimed himself "king of the Kushans" after 262 (Carter, Martha L 1985: 215-281). Four different Peroz have been identified and marked as Peroz A, B, C and D. According to Carter (1985: 215-281), "The Peroz or Perozes of crown types A and B appear to have created a kingdom of considerable breadth. The heavy coppers, which must have circulated somewhere in the region of Gadhara, became the prototype for all Kushano-Sasanian heavy coppers to come, indicating firm and lasting control over this region".

According to Carter (1985: 215-281) "the ephermal Kushanshah, Peroz II and Hormizd II, are known from a fairly small number of coins. Which Kushanshah came first is problematic, but it seems fairly certain that one succeeded the other. The better-known king through his issues and probably the

more powerful is Peroz II. For this reason, it seems likely that he succeeded Hormizd I …… Peroz II is also represented on both light and heavy copper issues" (Carter, Martha L 1985: 215-281). Joe Cribb has placed Peroz II between A.D. 300-325 (Cribb, Joe 1990:151-193)

Conclusion

Many coins though not properly mentioned were found during archaeological excavations by H. Hargreaves in 1911. Since the coins were not properly and scientifically related to the strata from which they were retrieved, and no proper record of the excavations was maintained, it is possible that these coins of Apollodotus-II and may possibly include coins of other kings in shape of a hoard, inserted in some votive stupa as offering. The votive stupa might have gone due to some sudden disaster such as earthquake, heavy rains and floods etc. and the coins scattered. The area from which the coins were found by Hargreaves is very important as it was from here that Nadiem had reported a schist piece with Kharoshti inscriptions. The buildings at Takht-i-Bahi are either located on top or on terraces of the Paja hill. Due to natural disasters, many buildings had collapsed. Heavy rains and resultant floods might have washed much of the cultural wealth down to the plains in the north, which are now occupied by modern residential and commercial buildings.

We firmly believe that some important religious buildings were existing at Takht-i-Bahi during the 2nd and 1st centuries BC, which were destroyed due to natural calamities such as earthquakes, heavy rains and floods. The possibility of existence of foundations of such buildings cannot be excluded, but since no systematic and scientific excavations had been conducted the vital evidence either lost or could not be recorded. Building or reconstruction activities might have started soon after the disaster, but we have no record of such activities. It is however, confirmed that construction activities had started during the Parthian period and Gondophares had added some buildings including the Monastery building to facilitate stay of the monks for peaceful meditation during the 1st century CE (Khattak 2019: 51-105).

The present discovery of three copper coins Vasudeva II, Vasishka and Peroz II were also not found from proper archaeological excavations. These coins were found when the debris left at the site from the archaeological excavations of 2002-2004 was being carefully sorted for any cultural material and cleared to facilitate conservations works. We believe that if three coins could be found

from the debris of the excavations of 2002-2004, considerable amount of such coins and other important cultural objects might have been found from proper archaeological excavations. We are surprised that no coin was reported from the excavations of 2002-2004.

If we give even a cursory look to the entire scenario beginning with the discovery of Apollodotus-II (1st century BC) coins to the discovery of the present three coins (3rd-4th century AD), it is not difficult to reach some definite result. On the basis of available data, we draw the following conclusion:

(a) First religious buildings, most probably the first Stupa might have been constructed at Takh-i-Bahi somewhere between 2nd-1st centuries BC;

(b) The available numismatic evidence presents a gap of at least three centuries from the time of Apollodotus-II to the time of Vasudeva-II. However, there is no gap in the constructional phases and the activities continued here from 1st century BC to 7th century CE. This reinforces the idea that the coins of all the kings who ruled Gandhara from 1st century BC to the 7th century CE should have one way or the other found their way to the site;

(c) Non-professional, unsystematic and unscientific archaeological excavations have caused more damage to the historic fabric of the site and the associated cultural objects. Resultantly most of the potential evidences were lost;

(d) The excavators were more interested in sculptures and did not pay any attention to other cultural objects, particularly the pottery and the coins – very important for dating;

(e) Natural calamities such as earthquakes, heavy rains and floods might have destroyed most of the cultural objects, particularly the coins. Most of the coins might have been plundered by the coin hunters or washed away from the tops and the slopes by heavy rains and floods down towards the north. This fact can conveniently verified through the coins available in museums of the world with no authentic source(s) of acquisition and provenance.

Recommendations

Though chances of finding epigraphic and numismatic evidences are quite bleak keeping in view the large-scale plunder after 5th century CE and particularly during the past more than two centuries and damages due to natural calamities over the past two millennia, but we recommend that large scale archaeological excavations should be undertaken by professional archaeologists at all such places where no proper excavations have so far been conducted. We are hopeful that wealth of cultural objects including coins would be found to help reconstruct the missing links in the history and chronology of the important site.

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Figures

Fig.1: Stone bowl with Kharoshti inscription and decorative motifs found in four pieces on back side (south) of the Main Stupa Court in an area containing some important building probably residences of some very important personality. It was restored in the present shape.

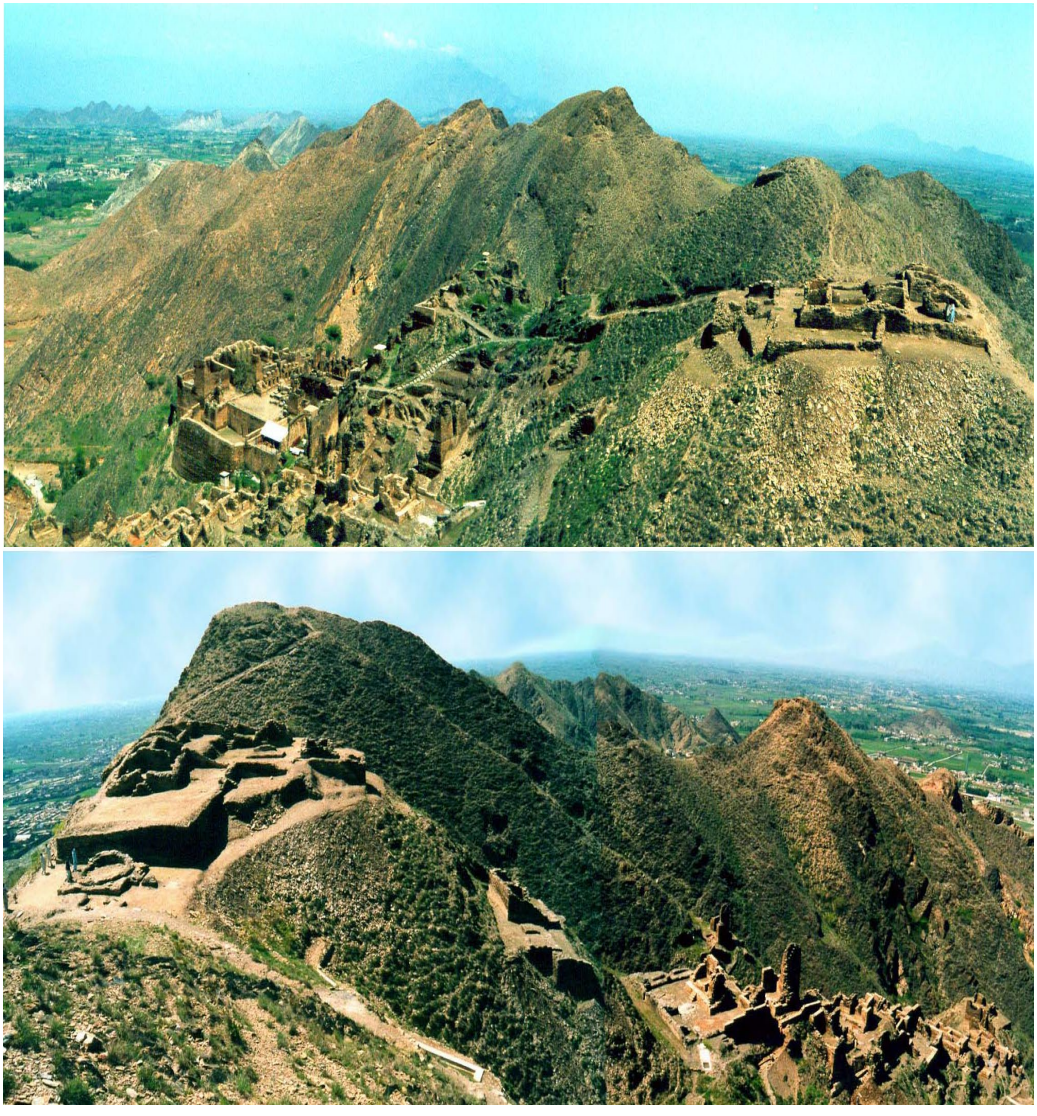

Fig. 2: Secular as well as religious structures on the west/south-west of the Main Monastic Complex across the dry water channel on a separate ridge extending from top on south down towards north.

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