

## SYMBOLISM OF ZOOMORPHIC DEPICTIONS IN THE BEADS COLLECTION OF TAXILA MUSEUM, PAKISTAN

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### ABSTRACT

*This research paper investigates the animal beads in Taxila Museum and attempts to trace their significance in the belief system of ancient Gandhara region. Amongst the artefacts found from Taxila, beads are the most commonly found antiquities. The present researchers, thus, felt it necessary to study the neglected aspect of beads' study in the perspective of religious practices in this cultural region. The subject is presented in four parts: the first part of introduction, explains the geographical and historical background of Taxila; the second part describes the classification based on material, art, techniques, and diversity of zoomorphic depictions; third part discusses the symbolic religious significance; while the fourth part is added as the inventory of beads; which leads towards the conclusion of this study. The discussion is aided with figures attached at the end of this paper.*

**Keywords:** Beads, Zoomorphic Representation, Taxila, Gandhara.

### INTRODUCTION

Beads were made from different materials such as semi-precious stones, common stones, metals, glass, shell, bones, faience, and terracotta etc. Some materials were even imported from other countries. In the Neolithic period stone and beads are documented. Soft stone and limestone were used to make beads in the early time period; the polishing of the stone beads such as carnelian, banded agate and jasper were done in the chalcolithic period. The craftsmen from Indus produced beads of every size. Beads were developed in different colors and textures. For neck, waist and wrist ornaments the beads of carnelian, lapis lazuli, turquoise and copper were in use and in female burials amulets of black stone or greenish colored stones have been identified through the study of beads we come to know that they were not only used for beauty and ornaments but also for religious purposes.

Gandhara is the ancient name of the land situated on the bank of Indus River. At present it comprises the Khyber Pakhtunkhwa Province, North Punjab (Taxila valley) and Kashmir. It had also covered the areas outside its geographical boundaries i.e., Afghanistan, in different periods of history (Sharma 2004: 1-3). Taxila is situated on the eastern boarder of Gandhara and 20 miles to the northwest of Rawalpindi district. Taxila lies in a lush green valley, which is watered by Haro River and protected by a girdle of hills; on the north and west by Snow Mountains of Hazara and Murree ridge, on the south and east by the well-known Margalla spur and other lower eminence. It lies between the Indus and Jhelum. The southern part of the valley is less fertile because of broken and stony mounds, which are ruins of old times. Monasteries on the south of the valley flows the Lunda-nala, and on western foot the Hathial hill flows the Tamra-nala and they finally both meet in Haro River. There are three main important trade routes in history of Taxila valley. One is from India, second from Western Asia, and the third from Central Asia (Marshall-1960:1-3).

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Sir John Marshall is considered behind the construction of the Taxila Museum. The museum is located 34 kilometers northwest from Islamabad, Capital of Pakistan. Sir John Marshall had initiated the construction of this Archaeological museum in 1918 under his auspices and Viceroy Chelmsford laid the foundation stone. Sir Marshall retired from his post of Director General of Archaeological Survey of India in 1928. The construction was completed in 1928 which was inaugurated by Habib Ullah Khan, who was the Minister for Education.

Beads are found from different archaeological sites in Taxila valley of Pakistan. Most of the beads were made of precious, semi-precious stones, bones, shell, terracotta, ivory and glass of different sizes and shapes. Beads which are found from Taxila are very interesting. A large number of beads and pendants are found during excavations. The precious and semi-precious stones consist of quartz, carnelian, agate, jasper and lapis lazuli. The beads are found in barrel, circular, oblong, short disc, spherical, bicone, square and round shapes. Most of the beads are handmade (Khan 2002:188-189). Beads are an attractive and unique possession which has used for multiple purposes. Beads were used as a jewelry, ornamentation object, currency, rituals object and religious purposes. Their varieties are displayed in museums everywhere (Allen 1998: 10). Approximately 8500 beads are recorded from the different sites in Taxila valley; from Bhir Mound 1,763 and 5,534 from Sirkap, some from Dharmarajika and other sites (Marshall 2006: 729). After Marshall many excavations have been conducted at the valley so the number of beads would be increased. In South Asia, bead making was high in demand because of the large trade networks in prehistoric times (Kenoyer 2007:4). All the Indus beads were once present in Taxila museum, but Sir John Marshall sent over 950 beads to Horace C. Beck and now those beads are placed in the Cambridge Museum of Archaeology and Ethnology (Beck 1941: 1).

Animals have played an important role in the life of every society and culture. They served different purposes and were assigned Different roles. While some were rare beasts for carrying loads or pulling carts, other catered it to fulfill the needs of milk, butter and ghee, which at the same time producing meat. Different cultures according to geography and needs tell the different stories about the roles of the animals (Ions 1999: 98). Some animals are depicted as gods just to show the power that humans do not have like: birds have the power to fly; turtles and fish can live under water; monkeys can swing from tree to tree; elephants can carry heavy loads (Ibid: 97). Most of the Hindu gods and goddesses are in animal forms, but only Vishnu has the power to transform himself. The transformation of Vishnu tells us that the rebirth of a person depends upon his deeds of previous life. His social circle revolves sometimes poor, sometimes rich, and sometimes a person transforming into an animal. Due to good deeds, he can get rid of the circle as well. So, in this sense man and animals are akin to each other. This idea is also present in Buddhism. Mostly animals are helpers of gods and human beings one of them is a Hindu god, Hanuman the monkey god who was the general in Ramayana who had the knowledge and magical powers. Another animal is king of birds named Garuda god. But most famous of all is Ganesh the elephant headed god and he is known as the god of the wisdom and the god who removes the obstacles. According to the myths we come to know that how important is the relation of god and animal (Ibid: 101).

Animal figures are numerous, but the human figures are very limited in number. The animal figures include those of bull, dog, horse, ram, pig and rhinoceros (Nandagopal 2006: 75). Some animals are even worshiped now a days, which were "Sacred" in ancient cultures or just taboo (Marshall 1931: 73). God Vishnu has twenty-two avatars but most famous are ten (Graves 1996:365). According to Jai Ram Mahraj Hanuman was a monkey God who walks upright like humans and flies in the air. He belongs to the Kashkanda tribe which still exists and from there the human race started. His mother was Anjana and father Pavan. He has twelve names according to the qualities he has. Mahakapi-Jataka, Tells that "the perfection of energy." The bodhisattva was a monkey-king. He was accustomed to go with his suite of eighty thousand monkeys to dispose themselves in a mango-tree. The king arches were ordered to surround it and exterminate the marauders. They could escape by crossing the Ganges. A bamboo rope was fastened to the branch of a great tree. The Bodhisattva tied the other end to his girdle with a prodigious leap clearing the river, but the rope was too short to allow him to reach the bank. He could only seize a tree with both hands, and over this living bridge the eight thousand monkeys passed safely (Couchoud 1994:86). Abhinandana, one of the Tritankaras of Jainism is also represented as a monkey (Sahoo 1994: 21).

## **MATERIALS AND METHODS**

Semiprecious stones, shells and glass were commonly used in Bhir mound and Sirkap but the styles changed with time period (Marshall 2006: 729). There are many common stones used for bead making. These stones include lapis-lazuli, jasper, garnet, and chalcedony. Turquoise, blue and red serpentine and some other stones were also used for beads. Some specific types of black agate beads are found in Bhir mound. Mauryan and late Saka-Parthians people fashioned Amethyst, but it was not much of a favorite (Ibid: 731). For bead-making, different materials have been used in Hathial and Gumla. Carnelian, jasper, lapis lazuli and agate were among precious stones. (Dani. 1971: 86). The Quartz, crystals, amethyst, agate, chalcedony, carnelian, onyxes and jasper are commonly used for adornment (Allen 1998: 17). Beads are often made up of cheap materials and rarely made from expensive and high-quality materials. Normally it is seen that the craftsman used poor material to earn more profit (Casanova 1993: 137). A necklace of steatite disc, beads, and the stone beads of banded agate, turquoise, jasper and three small gold beads necklace was found in a grave worn by an adult man from Harappa (Kenoyer. 2013: 8).

### **Bead Making Material and Techniques**

The technique of bead making was almost the same in different time periods even in some places in the present time (Ludvik 2012:2). It is proven that the bead making technique of Asia was different from the bead making technique of Mesopotamia. In Central Asia, the beads were not drilled according to its axis. Most beads are found in small and medium sizes. The beads which were made by the craftsman of Central Asia are rudimentary but they are of very good quality. The technique of bead making of Mesopotamia was much more advanced than of Central Asia and beads of every size are found and they used all quality materials (Nandagopal 2006: 142).

### **Drilling**

The drill hole becomes highly polished when the drill is used on hard materials such as agate (Kenoyer 1992: 504). The ancient craftsmen used the drill of 70 and 100 mm long for carnelian beads (Kenoyer. 1992: 511). Beads are almost prepared in this manner that, first a rough outline is made on rock for chopping. The edges of the rock are first chopped to make it smooth. Then it is incised with the help of a micro blade. Finally, the rock is broken on snapping it on an anvil. A rough parallel piped shape is obtained. Then this shape is drilled to make it smooth. Many beads are found broken because drilling is the most difficult part of bead making (Casanova 1993: 139). Many beads are found in which the drilling hole is not in the center (Ibid: 141). The common technology used for drilling was tapered cylindrical drills (Kenoyer 1992: 498). Drilling was even done with the help of hard stone drills which was a new technique (Kenoyer 2013: 6). The archaeological record is witnessed that drilling was done with the help of stone drill but as technology was changing the new drills were added such as copper and diamond drill (Ludvik 2012:2). Heavy grinding could cause cracking in the beads, so water is used to remove the extra powder and to cool the bead during the process (Kenoyer 2007:). There were different techniques for making beads of different materials depends upon the nature of the material.

### **Shell**

By cutting off the top or the end of a dentalium shell a narrow bead was produced (Nandagopal 2006: 121). A different technique was used to make shell beads. The most effective technique was to make a hole in shell to give it a shape of pendent or bead. Hole was made by grinding, chipping or using drill of chert or copper. Breaking and shaping was the most difficult part of shell bead making. The beads were ready to use after polishing (Kenoyer 2005: 161).

### **Terracotta**

Through flexible clay any type of ornament can be easily shaped. Beads are made up of special kind of filtered clay paste. Then color was applied on them. Terracotta beads were made carefully in controllable heat in special ovens. Beads are also made up of clay lumps rolled up in fiber (Ibid: 120). Terracotta beads were made with hands and fine clay or some tools were added. Some beads were simply rolled or pinched or tiny holes were made in the bead with the help of a long thin tool such as reed or porcupine quill. For the decoration the beads were pinched, marked and impressions were given to the surface. During the Harappan phase different colored clay was in use to give a look of stripes of different colors like soft stone of jasper. In the last stage, the beads were fired, which was a quite simple process and was done with the help of small fire or in the course of firing pottery (Kenoyer 2005: 159).

### **Faience**

The materials for faience beads were not available locally and it was extremely complex to make faience beads as compared to terracotta beads. To make powder rock quartz were crushed after heating and with the help of flux it was melted. In the beginning or during the process of grinding and melting; the colors were added to the frit (mixture of silica and fluxes that is fused at high temperature to make glass). All the material brought together to give them shapes like beads and ornaments. After they were carefully dried, the fluxing agents were allowed to penetrate to the surface and the beads were fired in special kind of ceramic canisters. New research tells us that these canisters were fired into the bonfire or pit kiln, not in an updraft kiln (Kenoyer 2005:160).

### **Steatite**

Thousands of micro cylinder beads of steatite were made; their unbreakable structures were so worthy of attention. From Harappa at least 200 beads were found of which 77 were of steatite. The beads were made at Chanhudaro, Lothal, Surkotada and Mahorana. Two types were used to make steatite beads, first was flaking and other was moulding. Paste of the steatite powder was applied to the wire or thread and heated on high temperature as 1200°C. Many beads were produced about size of 1/32 (Nandagopal 2006: 118-119).

### **Religious Significance of Animals and their Representation on Beads**

#### **Monkey**

Monkey God who is famous because of his courage, strength and helping everyone selflessly and also famous for the qualities of the monkey, like full of humor and mischief. He is a major character in Ramayana, and he led the group of monkeys to help Rama to rescue his wife Seta from Ravan. He is also a supporter of wrestlers or fighters and he even represents the relationship of master and a servant (Gibbons 2007: 121). In India, the worshiping of monkey has deep roots than any other country. Hanuman the half human and half animal usually found in the entrance of the forts towns and villages as the guard (Marshall 1931:72). In Buddhism, the Hindu god Hanuman's journey to India and helping Tripitaka to get Buddhist sculptures (Cotterell 1979:72). The fable monkey in Chinese Buddhist tradition has Tripitaka, which was an old monk travelling to India to receive and bring back the Dharma teachings to China. He meets a powerful monkey on the way, who becomes his guardian and the protector of the Dharma (Das 2007:20).

#### **Lion**

In the animal kingdom, lions are proud and majestic kings. Lions are always been associated with royalty, wisdom, pride and protection. In Hinduism, Another avatar of Vishnu was lion (Naraha) that came to the earth to destroy demon Hiranyakasipu; he become dangerously powerful because Brahman gave him a boon that he will not fear death, not god, not beast and not even man; not in day time nor at night; not in his accommodation nor outside of it. He was excited about this unchallenged power of him and he became a plague for both gods and man. He even scared his son who was a follower of Vishnu; he refused to accept his father's lies about his unlimited supernatural powers. One day, at the time of sunset which was not the day time not even the night, demon takes his son to the doorway which was not inside of his house and not outside of it. And asked his son; does your god really exist in this column? This question makes Vishnu angry and he came out of the column in the shape of man-lion which was not man not beast and tore the demon into pieces (Vitsaxis 1977: 21). In Buddhism, lions are seen as a symbol of the sons of the Buddha. Spiritually developed, they vow to remain in this world and to free all people from suffering. The lions are the protectors of dharma, Buddha and bodhisattvas. The lions are usually depicted on the main entrance of the Buddhist shrines to protect it. In Jainism Mahavira is one of the Tirtankaras of Jainism is represented as a lion (Sahoo 1994: 21).

#### **Bull**

According to Jai Ram Mahraj cow, bull, goat and ram etc. all are classified as one family. Bull is a universal symbol (if Oxen and buffalo are also added) in mythology among the big variety of animals. In mythology, two most important elements are added in its nature; one fertility and second the ability to cause great and irreparable damage (Ions 1999:102). In Hinduism, According to Jai Ram Mahraj; it is narrated in Padam Puran, Shrimad Bhagwat Geeta, Chapter 8; a man brought a goat to slaughter it for his offspring. When he was about to slaughter; the goat started to speak and said, "In my previous life someone asked me to do the same as what you are doing." The cow is taken as the supreme power

a mother goddess who is called Swarg Gai (the cow of heaven) named as Kamadhenu; the original wish fulfilling cow and she is still worshipped.

The figure of bull in India is considered as in both fear and advantageous meaning. A demon bull was sent to kill Krishna when he was enjoying his time pass with cow girls, Krishna broke his neck. Krishna is known as the bringer of the love and peace in the world. Another bull is very famous in myths is Nandi; a white bull who was Shiva's conveyance at the time when the god couldn't transform himself (Ions 1999: 104). Nandi, the bull at the time of churning of the ocean Nandi was Siva's mound. The bull is usually portrayed in white color. The white bull image is always clearly portrayed in front of the Siva's temples (Graves 1994:372). All the sects of Hinduism and followers of Siva celebrate the festival that humped bull and bull without hump has close association with Siva; once in a year. They stamp the bull with the trident of Siva and dedicate it to him. This is considered to be the height of act that provides a deceased person to the next world with a vehicle (Marshall 1931:72).

In Buddhist text a pure white bull is announced to be a guarantee of the lord's victory over his enemies, while if he saw a spotlessly dark bull, it implied his defeat and the bull signified in images and symbols the pre-prominent position of the Buddha among the instructors of his age (Gokhale 1974:113,117). In Jainism Rsabhanatha, one of the Tirtankaras of Jainism is represented as a bull (Sahoo 1994: 21). Mahavira's mother Trishala dreamt of white bull that its color was whiter than the color of pearl of a lotus flower. And light was glowing from all the sides. Some religious scholars of Jainism say that this dream is indicating the birth of the great leader who will spread the light of knowledge in all the directions to guide all mankind (Sharma 2003: 21). Historically the bull is found frequently on the seals of Mohenjo-Daro (Indus civilization). It shows some kind of sacredness. The pictographs are not deciphered yet, so the mystery is still curious to know the culture of the Indus Valley (Graves 1996:326).

### **Elephant**

Elephant is considered as a big cloud that is beneficial for agriculture when it showers rain. Because of Lakshmi and the dream of Maya elephant has taken its place in Mythology (Rahman 2012:26). In Hinduism, Vishnu's wife is Lakshmi, the goddess of beauty, wealth, and good luck. Gold coins are falling from her hands, and she is protected by two white elephant which is a symbol of good luck (Vitsaxis 1977: 75). The elephant is headed brother of Kartikaya and son of Shiva and Parvati. He is riding on the rat. His task is broken which is for the purpose to write the Mahabharata. He is known as the god of wisdom, luck, and learning. People pray to him before starting any task because people think that he can remove all the hurdles. He is often shown with four hands, one represents the act of blessings, in one hand he is holding a rosary, in one hand holding a snake (that shows the power of control over death), and in the fourth hand he is holding his broken tusk (Gibbons 2007: 121). The Gandharan Buddhist sculptures tells us about the dream of Queen Maya that a white elephant is entering in her body which was predicted by Brahmana on the other day that the queen will give birth to a great man. (Ghani-ur-Rahman 2012: 23). Queen Maya's husband called upon Brahmana to interpret the dream, he interpreted the dream as "that the child will become Buddha or Universal king" (Rahman 2010:244). The elephant which is considered to be Buddha, entering in her mother's womb and later an elephant tried to harm Buddha and suddenly bow before him which shows the divine powers of Buddha (Ibid: 27). In Jainism, Ajitanatha one of the Tritankaras of Jainism is represented as an elephant. (Sahoo 1994: 21-22) Mahavira's mother Trishala saw a dream of a huge white elephant whose color was whiter than a cloud. And the fourth dream of the Queen was Lakshmi seated on lotus petals floating in the lotus lake and two white elephants were splashing water on her. Queen concluded that her son will be a king and he will heal the suffering of the people (Sharma, 2003, 20-21).

The seals which are found from Mohenjo Daro show that the elephant has some kind of religious importance in the Indus valley. Many seals are found from various sites during the excavations with the depiction of an elephant. Maybe such kinds of seals were used for the purpose of trading with other neighboring countries. Elephant has influenced the life of man from prehistoric times, evidences are the figures which are found in cave paintings, bones, ivory, etc. Even in Mughals era the kings were honored to be seated on the back of the elephants. Alexander the Great faced many problems during the war when he arrived in India because of the elephants (Ghani-ur-Rahman, 2013: 81-83). The depiction of elephant on seals shows some kind of religious sacredness and magic. The

seals show a clear place of elephants in mythology. In Mauryan times, the kings worshipped the animals for their personal interests. Elephants were also found on the Asokan pillars. Even in the Mughal era, the elephants used to pull the royal vehicles (Rahman 2010:255)

### **Bird**

The birds have various roles in myths. Especially they are very helpful in the relation or link between sky and earth, man and gods. They are connected with creation in a wide range. In Hindu text a noble king of the birds in India is Garuda, a bird god; who is an eagle with the body of a man. He spread his wings over the home of gods, Mound Meru, for one year to save them from the attack of Vayu a god of wind (Ions 1999: 106-7). Garuda, king of the birds, is the messenger between gods and man. Garuda is also present in Buddhist iconography of Gadhara. Garuda has a crown on his head or a bird with a human head (Gibbons 2007: 121). In Hindu mythology, Dhumavati has been known as widow forever. She is the ugliest form of Shakti. She is a creative power of Hinduism. A black crow was depicted on her flag which is the symbol of black magic (Ibid: 122). According to Jai Ram Maharaj; it is narrated in Shri Ram Chread Manas (Shri Ram story book) that a crow named Kak Bhusundi, when was a human, disgraced his Guru in a meeting. The guru cursed him to become a crow in next birth. Kak Bhusundi asked that how he is going to take mukti from the body of a crow. Guru replied that touch the feet of Baghwan Shri Ram. According to Jai Ram Maharaj, it is narrated in the 18th book of Puranas, when Gotham Ruser's was attacked by Indra.

### **Tortoise**

According to Hindu mythology, Vishnu's second avatar on earth was Kurma the tortoise. His mission was to retrieve certain divine treasures that were lost in the flood especially the most important of all was the nectar of immortality (amrita). As the flood in the ocean rose; there was no place for Vishnu to stand and as he transformed himself into gigantic tortoise. All the gods and demons climbed upon his back. In this mission, both the gods and demons helped each other to retrieve the treasure (Vitsaxis 1977: 17). The turtle avatar of God Vishnu is a pivot of Mound Mandra at the time of storm in Milk Ocean (Ions 1999: 83). In India, Kurmal was the second Avatar of god Vishnu. He was brought to the earth to carry the great weight of Mound Mandra on his back to preventing from diving and to maintain the balance of the earth (Ibid: 104-105). In Buddhist mythology, Tortoise is the mythical symbol of Buddhism; it represents the north and the winter season. Also known as the black warrior. In Jainism, Munisurrata one of the Tritankaras of Jainism is represented as tortoise (Sahoo 1994: 21-22).

### **Frog**

Frogs are considered to be the totem of good luck. In Buddhism, Frog is the sigh of good luck, and it is associated with lunar eclipse. In Jainism, the zoological classification of Jainism tells us that the frog represents the movement of land and water (Shah 1998: 159).

### **Dog**

Dogs are kept as disciplined animals and are very helpful to man, to bring food or they can even attack them. In Hindu mythology they are shown the dirty creatures as the bringers of death and the polluters or as hunters, but Indra still keeps his dog (Ions 1999: 112). Some animals like dogs may not be worshipped, but we can say that they were sacred, used as taboo or used in amulets or have some link with any kind of magical powers (Ibid: 74). According to Jai Ram Maharaj, the memory of a dog is sharp and it's the totem of loyalty in Hinduism. It's an inherited tradition of Hinduism to feed bread to the dog. It is narrated in Mahabharata that a dog was with Dharma Raj Yudhishthira when he was going towards heaven. Yudhishthira finally reached at the heaven and Indra welcomed him. Yudhishthira didn't want to abandon his dog, so he refused to enter heaven and requested to take his dog along with him (Maharaj).

### **Catalogue of the Beads Collection of Taxila Museum**

A. Monkey bead

Site: Bhir Mound

Material: Faience

Date: 3<sup>rd</sup> Cent B.C

Description:

Miniature monkey shaped pendent made of faience, in a very good state of preservation; monkey is sitting in an upright position; both hands are in front of the face, while elbows rest on knees; deep

incised goggle eyes, well-shaped ears; hole for string is provided in front of neck; tail is not depicted (Figure 1).

**B. Lion beads**

Site: Sirkap

Material: Carnelian

Date: 1st cent B.C

Description:

Lion bead made of Carnelian in the shape of a seated lion; ears are in upwards position. Bulging eyes are shown in relief; folded legs, body figures are clearly depicted with deep incisions (Figure 2).

Site: Sirkap

Material: lapis-lazuli

Date: 1st Cent. A.D

Description:

Lion bead of lapis-lazuli; it is in good condition; color is stable, however light grey stains are observed on the surface and soil incrustation is visible in deep areas (Figure 3).

Site: Sirkap

Material: Glazed quartz

Date: 1st cent. B.C

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. It represents a lion figure in walking style. Frontal portion is exaggerated to be large. The bead does not show any fine craftsmanship. Ears are upwards, eyes and mouth are pinched, and tail is missing (Figure 4).

Site: Sirkap

Material: Glazed quartz

Date: 1st cent. A.

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. The bead is in very poor condition no features are clear, hole for string is provided in the center of the figure. The outline looks like a lion only (Figure 5).

Site: Dharmarajika stupa

Material: Garnet

Date: 1st cent. B.C

Description:

The illustrated drawing of the lion bead is taken from the book "beads from Taxila" by Beck. The bead is in crude form, lower part and legs are broken. Eyes are pinched (Figure 6).

Site: Dharmarajika Stupa

Material: Garnet

Date: 1st cent. B.C

Description:

The lion bead of garnet; lion is in sitting position. The hinder limbs are broken while the front legs are stretched forward. Ears are upward on the back of the head (Figure 7).

Site: Dharmarajika Stupa

Material: Glazed Quartz

Date: 1<sup>st</sup> cent. A.D

Description:

Lion bead of Glazed Quartz is in very fine condition. Bead is a specimen of fine craftsmanship. It is well shaped and has highly polished surface. Hole to string runs from back to front. It is surprising that the skill of craftsman that how he carved a shape on this material because it is very hard to

fracture the material. Ears are on the back of the head tail has an outline, it's in sitting position nose is pinched and no part is broken (Figure 8).

C. Bull bead

Site: Bhir mound

Material: Carnelian

Date: 3<sup>rd</sup> cent. B.C

Description:

A pendant in the shape of humped bull; A narrow perforation is provided at head for string. Hinder legs are partially broken. Long pointed horns are meeting on forehead (Figure 9).

D. Ram bead

Site: Sirkap

Material: Carnelian

Date: 1<sup>st</sup> cent. A.D

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. Bead is in the form of seated ram. Traces of twisted horns are visible. Round eyes, pinched nose, slightly opened mouth. The bead is in very poor condition (Figure 10).

E. Elephant beads

Site: Sirkap

Material: Steatite

Date: 1<sup>st</sup> cent. A.D

Description:

Elephant bead of grey color. No part is broken it has a tusk and round big eye legs and tail (Figure 11).

Site: Sirsukh

Material: Carnelian

Date: 3<sup>rd</sup> to 4<sup>th</sup> cent. A.D

Description:

Elephant bead of carnelian, orange in color. No part is broken; it has prominent big ears and short trunk; tusks are clearly depicted. Legs are short and sturdy (Figure 12).

F. Dog

Site: Sirkap

Material: Carnelian

Date: 1<sup>st</sup> cent. A.D

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. This is a curious bead according to Beck it could be a fish. Eyes are pinched. Neck is purposely cut in smooth and even section which indicates that it might be a stopper of a perfume container/bottle and narrow hole might be used to tie it with the container/bottle (figure 13).

G. Bird beads

Site: Bhir mound

Material: Carnelian

Date: 3<sup>rd</sup> cent. B.C

Description:

The bead represents bird sitting on a tree. The bird might be a cock. It may be a weather cock that has the tendency to face the direction of the wind. No part is broken (Figure 14).

Site: Sirkap

Material: Agate

Date: 1<sup>st</sup> cent. A.D

Description:

Bead in the shape of an Indian crow; beak and tip of the tail are partially broken. Head and beak are in black color, neck is white while rest of the body is in dark grey color. Wings and feathers are clearly depicted with incised lines. It is a fine work of art. The grey belt of the bead is beautifully placed in neck area that looks like the part of the whole stone (figure 15).

Site: Bhir Mound

Material: Chalcedony

Date: 5<sup>th</sup> cent. B.C

Description:

Duck bead of chalcedony; white in color. Tip of beak is broken no detailed features are seen. However, it provides a clear profile of a duck (figure 16)

Site: Dharmarajika Stupa

Material: Garnet

Date: 1<sup>st</sup> cent. B.C

Description:

The illustrated drawing of the bead is taken from the book “beads from Taxila” by Beck. The bird bead is in poor condition; head and tail are missing wings can be seen clearly. It is difficult to identify the type of birds (figure 17).

Site: Sirkap

Material: Bone

Date: 1<sup>st</sup> cent. A.D

Description:

The illustrated drawing of the bead is taken from the book “beads from Taxila” by Beck. The cock bead is in poor condition tail and some part of the head is missing but crest on head is clearly identifiable (figure 18).

Site: Dharmarajika stupa

Material: Shell

Date: 1<sup>st</sup> to 5<sup>th</sup>cent. A.D

Description:

Bird bead made of shell, white in color. Head and beak are rounded and not clearly visible. Hole for string is provided in its back. The bead is not in very fine condition. Some marks can be seen on the body of the bead (figure 19).

Site: Dharmarajika Stupa

Material: Green Glass

Date: 1<sup>st</sup> to 5<sup>th</sup>cent A.D

Description:

The illustrated drawing of the bead is taken from the book “beads from Taxila” by Beck. The bird bead is in poor condition (figure 20).

Site: Sirkap

Material: Faience

Date: 1<sup>st</sup> cent. A.D

Description:

Bird pendant bead is in crude form. The shape of the bead, grooved feathers and half folded wings suggest that it might be the figure of an eagle. However, no such suggestion is given by the scholars. Head of the figure is rounded; beak is not clearly depicted. Hole in the neck is provided for string (Figure 21).

#### H. Tortoise beads

Site: Sirkap

Material: Glazed Quartz

Date: 1<sup>st</sup> cent. A.D

Description:

The tortoise bead of highly polished Quartz in pure white color; neck is turned towards its right; frontal legs are spread outward which suggests that the artist tried to show movement in the figure. It is in poor condition. Head of the figure is slightly broken (Figure 22).

Site: Sirkap

Material: Green Faience

Date: 1<sup>st</sup> cent A.D

Description:

Tortoise bead of green faience is in poor condition and in crude form. It has a raised head with no detail of eyes or mouth. Four legs can be seen prominently projecting downwards position. String hole is present in the neck (Figure 23).

Site: Dharmarajika Stupa

Material: Garnet

Date: 1<sup>st</sup> cent. A.D

Description:

Highly polished tortoise bead of garnet; it is in very fine condition. No broken part or any scratch is recorded. It has a raised head, outwards projecting four legs. Detailing can be seen on the upper shell of the bead (Figure 24).

Site: Dharmarajika Stupa

Material: Mother of Pearl

Date: 1<sup>st</sup> Cent A.D

Description:

Tortoise bead of mother of pearl; it is in good state of preservation. It has conical head with horizontal perforation instead of eyes for hanging in a string. It has outspread four legs and small and sturdy pointed tail. A semicircular incised line is visible on its back (Figure 25).

#### I. Frog beads

Site: Sirkap

Material: Agate

Date: 1<sup>st</sup> cent.AD

Description:

Frog bead of agate; it is in poor condition front legs of the figure are broken. Muscles and figures of the body are depicted with incised lines (Figure 26).

Site: Sirkap

Material: Glazed Quartz

Date: 1<sup>st</sup> cent. A.D

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. The frog bead is broken and in poor condition. No considerable features are visible (Figure 27).

Site: Dharmarajika Stupa

Material: Glazed Quartz

Date: 1<sup>st</sup> cent B.C

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. Eyes of the frog are pinched, and the mouth is wide open front limbs are in better condition and has incised lines. Perforation for string is provided in the center of the frog. Back limbs are broken (Figure 28).

Site: Dharmarajika Stupa

Material: Garnet

Date: 1<sup>st</sup> cent. B.C

Description:

Frog bead of Garnet; it is polished and in very fine and neat condition. No part is broken. Hind and front all four limbs are in fine shape. Eyes are projected on upper part of the head (Figure 29).

Site: Dharmarajika Stupa

Material: Amethyst

Date: 1<sup>st</sup> cent. B.C

Description:

The illustrated drawing of the bead is taken from the book "beads from Taxila" by Beck. Hind limbs are present but front limbs are broken; head is even missing. It is in very poor condition (Figure 30).

Site: Dharmarajika Stupa

Material: Shell

Date: 1<sup>st</sup>-5<sup>th</sup> cent. A.D

Description:

Frog bead/pendent of shell is in fine condition; however, head is slightly chipped off. It has conical head with round perforated eyes. A hole across the nose is provided for string. The figure has short, outstretched legs (Figure 31).

Site: Jandial

Material: Shell

Date: 1<sup>st</sup> cent. A.D

Description:

A small pendent in the shape of frog, left side of the figure is badly corroded. It has conical head, separated from the neck by a deep cavetto. Chevron shaped double lines on the back. Small legs are folded inward (Figure 32).

## **CONCLUSION**

Beads are commonly found from the excavated sites which open the fascinating world of art. Beads were made up of different materials such as semi-precious stones, common stones, metals, glass, shell, bones, faience, and terracotta. Some materials were even imported from other countries and a large variety of beads and materials also locally available. In the history of subcontinent, beads are found as an important ornament. Shells, bones, and antlers were used to make the earliest beads. Bead making has been started from Neolithic period. Soft stone and limestone were used to make beads in early stage; the polishing of the stone beads such as carnelian, banded agate and jasper were done in the chalcolithic period. The beads are excavated in large number from Taxila valley in different size, shape, and colors. Beads were made of different materials and shapes with different techniques, depended on the texture of materials.

Through the study of beads, we come to know that the beads were not only used for aesthetics and ornamentation, but these were also religiously significant almost in all the Indian major religions because of the zoomorphic carvings. Most of the precious and semi-precious stones were brought from distant countries where they had trade links with and might be possible that most of the beads, made of precious stones, were in fashion for religious purposes and rituals. Through the depiction of animals and birds in art, one can understand their due status and value in the prevailing culture and religion of the society. Maximum number of the depicted animals in art had a connection to the gods and humans as a helper or itself enjoying the status of god which were further clarified by the religious myths. The sacred/mythological concerned animals were not only formulized in beads, but these are also sculpted, engraved, and painted in the manner as mentioned in Indian myths.

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<http://www.wikisymbol.com/112/109/sobi2details>
- Interview: Jay Ram Mahraj, Pujari of Shiv Mandar Kabari Bazar Saddar Rawalpindi, 22, 12, 2014.

Catalogue of the beads collection of Taxila Museum.



Figure 1: Monkey Bead of Faience



Figure 2: Lion bead of Carnelian



Figure 3: Lion bead of lapis-lazuli

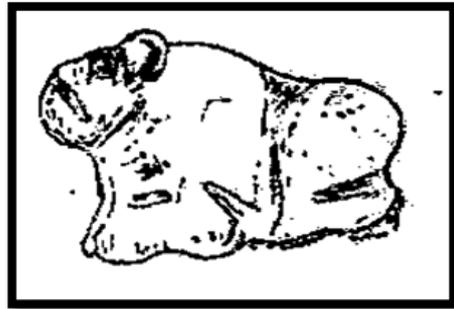


Figure 4: Lion bead of Glazed quartz

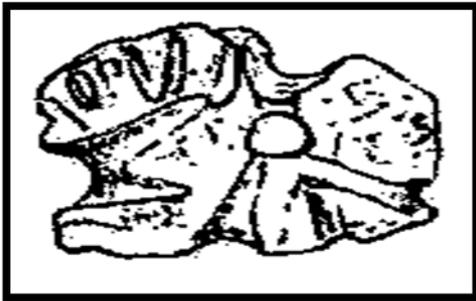


Figure 5: Lion bead of Glazed quartz



Figure 6: Lion bead of Garnet



Figure 7: Lion bead of Garnet



Figure 8: Lion bead of Glazed Quartz



Figure 9: Bull pendant of Carnelian



Figure 10: Ram bead of Carnelian



Figure 11: Elephant bead of Steatite

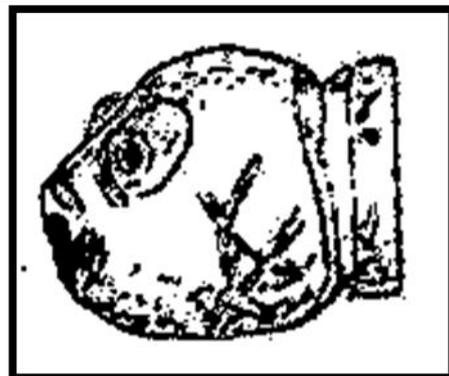


Figure 12: Elephant bead of Carnelian

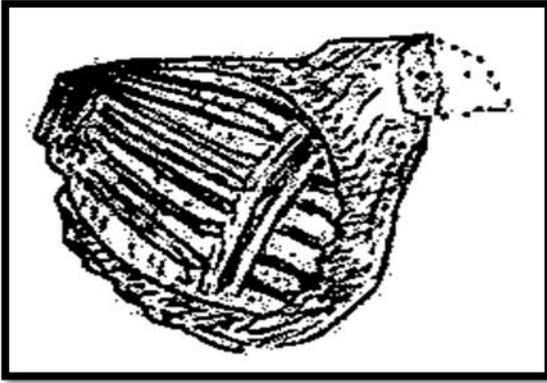


Figure 13: Dog head bead of Carnelian



Figure 14: Bird bead of Carnelian



Figure 15: Crow bead of Agate



Figure 16: Duck bead of Chalcedony



Figure 17: Bird bead of Garnet



Figure 18: Cock bead of Bone



Figure 19: Duck bead of Shell



Figure 20: Bird bead of Green glass



Figure 21: Tortoise pendant of Faience



Figure 22: Tortoise bead of Glazed Quartz



Figure 23: Tortoise Green Faience



Figure 24: Tortoise bead of Garnet



Figure 25: Tortoise bead of Mother of Pearl



Figure 26: Frog bead of Agate



Figure 27: Frog bead of Glazed Quartz

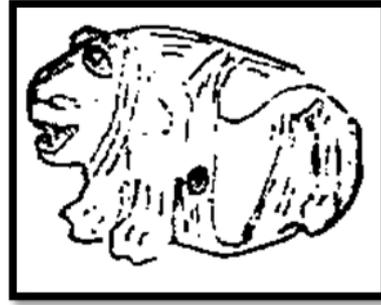


Figure 28: Frog bead of Glazed Quartz



Figure 29: Frog bead of Garnet



Figure 30: Frog bead of Amethyst



Figure 31: Frog bead of Shell



Figure 32: Frog bead of Shell