SOURCEBOOK FOR THE SHAHI KINGDOMS[1]

The Archaeological Beads from the Shahi Era of Barikot (Swat, Pakistan): Typological Insights and Chronological Indicators

Mubariz A. Rabbani

This article offers new insights into the typology of beads recovered from the well-excavated archaeological site of Barikot in the Swat Valley, Pakistan. By examining their materials and forms, the study reveals how the Shahi period inhabitants of the site used ornaments in their daily life while also participating in long-distance trade and exchange networks that stretched far beyond the valley. Dating between the 7th and 10th century CE, the stratified beads tell a story not only of local traditions but also of Barikot's place in the wider cultural and historical currents of the region.

TURK SHAHI PERIOD (MACROPHASE 8A: 7TH-9TH CENTURY CE = PERIOD 2A)

The types of raw materials that characterize the bead assemblage from Macrophase 8a at Barikot include glass followed by terracotta, marine shell, carnelian, lapis lazuli, amber, coral, perforated sea snail, and cowrie shell. Several bead shapes are represented in the bead assemblage including barrel, cylindrical, areca nut, spherical, irregular-spherical/globular, cowrie shell, and sea snail forms. A total of 25 beads were recovered and studied, attributed to Macrophase 8a of the Early/Turk Shahi period of Barikot (Table 1). Although the number of recovered beads is small, glass appears to be the most dominant raw material for beads that was favored by the people of Barikot in Macrophase 8a. The overwhelming preference for beads made from glass in Macrophase 8a-8b, in contrast to terracotta popular during the earlier periods of the site, probably reflects a shift in the popular taste for certain materials at Barikot. Terracotta, as a material, appears to have remained quite popular among the inhabitants of Barikot during the earlier periods (between Macrophase 3b and Macrophase 7). The glass beads from Macrophase 8a are produced in various shapes—some of which bear typological links with the glass beads of the earlier periods of Barikot as will be shown in the example of the Indo-Pacific group. The study of the glass beads from Macrophase 8a indicates that the shape and color of the recovered ornaments played a defining role in the lives of the people of Barikot.

The Indo-Pacific group of glass beads are a major characteristic feature of the material culture of Macrophase 8a, which come, most notably, in the color yellow (BKG 4464: Fig. 1). Yellow-colored Indo-Pacific glass beads appeared, though in insignificant numbers, in Macrophase 5b for the first time, which indicates that this specific group of the Indo-Pacific glass beads was circulating at Barikot already in the second half of the 3rd century CE. The use of these beads at Barikot, however, becomes widespread in Macrophase 8a-b only. Indo-Pacific glass beads have, in fact, been found in large numbers at sites across the subcontinent and beyond, in particular, in South India, Southeast Asia, and other parts of the world (Abraham 2013, 2016; Bellina and Glover 2004; Carter 2013, 2016; Cherian et al. 2016; Francis 1989, 1990, 2002; Heo 2018). Given the lack of evidence for on-site manufacture, they possibly arrived at Barikot in a finished state, although their precise provenance and mode of transport remain debatable.

[1] Online publication of the Austrian Science Fund (FWF) project *Cultural Formation and Transformation: Shahi Art and Architecture from Afghanistan to the West Tibetan Frontier at the Dawn of the Islamic Era* (P-31246) directed by Univ.-Prof. Dr. Deborah Klimburg-Salter in collaboration with National Research Partner HR Doz. Dr. Michael Alram.

The discovery of numerous Indo-Pacific glass beads provides evidence that Barikot probably participated in some form and capacity within the expanding trans-regional trade network zones when the Indian Ocean emerged as a major, international trading arena for various types of goods and commodities from the late first millennium CE onward.

With regard to the terracotta beads from Macrophase 8a, the recovery of areca nut beads provides more evidence for typological continuities with the beads from the earlier chronological periods of Barikot (Rabbani 2020a). Although no ghata-shaped beads (Rabbani 2020b) have been found in the excavations of the Turk Shahi deposits yet, it is likely they were produced and used at Barikot at the same time, as they have been identified among the bead assemblage from the succeeding Hindu Shahi period. Regarding the stone beads from Macrophase 8a, the excavations have thus far revealed two chipped barrel beads of carnelian (BKG 4808: Fig. 2), which are stylistically comparable to the carnelian beads from the earlier Macrophase 7 (post-urban period). In general, both carnelian beads from Macrophase 8a are of low quality, representing a contrast to the many well-manufactured, finished carnelian beads that characterize the earlier urban phases of Barikot (pre-Macrophase 7). The carnelian could have come from either Gujarat in India some 1200 km to the southeast or from the region of Sistan in Iran over 1200 km to the west (Law 2011; Tosi 1969: 374).

Furthermore, additional evidence of long-distance connections and regional transfer of materials can be evidenced by a unique very short barrel bead of amber (BKG 2055: Fig. 3). Notable occurrences of amber can be found along the Baltic and North Sea coasts as well as the eastern African coast, but no sources are known from the subcontinent (Ahuja 2018: 117; Kashani et al. 2011).

With regard to the beads of marine shell from Macrophase 8a, surprisingly, very few specimens have been recovered thus far from the excavations, although we know they were quite popular among the people of Barikot during the earlier chronological periods of the site, in particular during the Kushan period (Rabbani 2020a, 2020b, 2025). Despite the small number of recovered samples, the identification of beads made from marine shell, cowrie shell, sea snail, and coral from Macrophase 8a (BKG 4794: Fig. 4) prompts us to consider the establishment of potential connections, whether direct or indirect remains unclear, between Barikot and the southern coastal areas of the subcontinent during this time.

HINDU SHAHI PERIOD (MACROPHASE 8B: 9TH-11TH CENTURY CE = PERIOD 2B)

The types of raw material that characterize the bead assemblage from Macrophase 8b include glass followed by terracotta, marine shell, lapis lazuli, cowrie shell, carnelian, dentalium shell, coix seed, quartz/rock crystal, chloritic-schist, and sea snail. A range of bead shapes are represented in the assemblage including barrel, cylindrical, areca nut, ghata-shaped, spherical, biconical, irregular spherical/globular, lenticular biconical, segmented, cornerless cube, rectangular long rectangular, coix seed, cowrie shell, and sea snail forms. A total of 78 beads were found attributed to Macrophase 8b of the Hindu Shahi period of Barikot (Table 2).

As in the case of Macrophase 8a, glass appears to be the most popular raw material in Macrophase 8b. Various types of glass beads are found in the assemblage of this time—some of which bear strong typological connections with the glass beads from the earlier periods of Barikot. They include, most notably, the Indo-Pacific glass beads, which are evidently found in large numbers circulating at Barikot in Macrophase 8b, most notably in yellow, green, green-blue, and blue. In addition, several new types of glass beads appear at the site during this time

including a unique glass bead produced in the segmented form (BKG 4760: Fig. 5). Segmented glass beads appear, in chronological terms, for the first time during the Hindu Shahi period of Barikot and continue to be used during the later Islamic phases of the site.

Segmented beads appear to have been a key product of the Near Eastern and Egyptian glass bead industry and are found widely distributed throughout the region. Their manufacture is documented from the Early Islamic period from the site of Fustat in Egypt (Francis 1989, 1990, 2002; Rodziewicz 1984; Spaer 1993). Several segmented beads have been recovered from the excavations at Taxila and Arikamedu (Beck 1941: Pl. IX no. 17, 33-34, 41; Francis 2002). Various dates have been proposed for them, but it is important to take into consideration not only the chronological uncertainties associated with the excavations of these sites but also the possibility that their use duration may have varied from site to site. Given the lack of evidence for on-site glass bead production, it is possible that BKG 4760 may have been imported to Barikot through long-distance interactions with the Islamic territories to the west. The precise provenance of BKG 4760 can, however, only be determined through the application of a systematic scientific compositional analysis in the future.

Although terracotta beads are also present in the corpus of Macrophase 8b, their number remains fairly low with only ten beads recovered from the excavations thus far. The recovery of areca nut and ghata-shaped beads in Macrophase 8, despite being insignificant from a quantitative point of view, may potentially suggest the continued presence of a small Buddhist community at the site (Rabbani 2020a, 2020b), although the use of these distinct types of beads by non-Buddhist groups can also not be ruled out. The excavations have also revealed a hexagonal-faceted long barrel bead of rock crystal (BKG 4683: Fig. 6), which we know was a quite popular type of ornament during the earlier Kushan and Kushano-Sasanian periods of Barikot. Earlier studies suggest a potential link between faceted beads and Buddhist symbolism or ideology (Rabbani 2020a). For the Shahi periods, however, we are, due to a lack of evidence, not yet in the position to propose the same connection or line of interpretation.

In terms of the carnelian beads from Macrophase 8b, their number is currently quite small as it is in all the earlier chronological periods of Barikot. The carnelian beads from Macrophase 8b are, again, chipped and irregular in shape (BKG 2056: Fig. 7) similar to the carnelian beads of Macrophase 7 and 8a. In general, most of the carnelian beads from Macrophase 7 and 8 are short, irregular in shape, and of low quality compared to the carnelian beads of the urban phases of Barikot, which we see produced in various forms, degrees of quality, and size.

With regard to the shell bead repertoire of Macrophase 8b, only five beads of marine shell have been found in the excavations at Barikot. It is possible that the Shahi period population and rulers of Barikot may have struggled to gain full access to the routes that linked up to the coastal regions, which were at the time controlled by competing political forces and rivals. Alternatively, perceptions about shell materials may have simply changed (compared to the earlier urban periods), becoming undesirable during the Shahi periods, or their use may have fallen out of the trending fashion styles of the time. Apart from cowrie shells, a perforated sea snail (BKG 4774: Fig. 8) and two long cylindrical dentalium shells (BKG 4696: Fig. 9) are represented in the assemblage of Macrophase 8b. The bead assemblage from Macrophase 8b, hence, indicates that Barikot remained connected to various local and distant geographic locations including the southern coastal areas of the subcontinent.

In addition, the bead assemblage from Macrophase 8b is marked by another important development in the ornamental traditions of the people of the site. The most frequently used

plant ornament in South Asia is a bead made from a fruit called Job's tears or *Coix lacryma-jobi* (Arora 1977; Francis 1984). Beads of Job's tears have been recovered from several archaeological sites including Ahichchhatra in the Gangetic region of northern India and Anuradhapura in Sri Lanka, reportedly dating to the last centuries BCE (Deraniyagala 1972; Dikshit 1952: 50: fig. 4, no. 82). They are still widely used for ornamental purposes in South Asia, growing in many parts of the subcontinent (Francis 1984; Mehra et al. 1975; Stewart 1972: 115). In the context of the current study, two perforated coix seeds have been found for the first time at Barikot (BKG 4670: Fig. 10). This important discovery provides new perspectives on the use of plants for making beads during the Hindu Shahi period of Barikot. BKG 4670 may have been used as amulets or could have been imbued with magical functions as they are today among various female groups of the subcontinent (Arora 1977; Francis 1984).

CONCLUDING REMARKS

The typological study of the stratified beads from Barikot has provided us with new perspectives on the prevailing ornamental traditions of the inhabitants of Barikot during the Shahi periods. With regard to the second half of the 1st millennium CE, B. Deo noted twenty-five years ago: "In fact, we have no reasonable datable material for the subsequent epochs either in the north or south [of the subcontinent] till the advent of the Muslims on the Indian soil. Even then the material is restricted to a few bead types and pertains to a few explored sites. The general picture which emerges is that of countless varieties in the manipulation of glass" (Deo 2000: 120). The study of the Barikot beads, deriving from Macrophase 8, has not only provided us with new perspectives on the use of bead ornaments but also supports Deo's observation about the significance of glass materials during this time. Most beads that derive from Macrophase 8 are made from various types of glass, most notably, the Indo-Pacific glass group, replacing terracotta as the dominant bead raw material at the site.

The beads are, in fact, made from a large variety of materials and occur in many different shapes, representing a distinct period of socio-economic growth and complexity. There is even evidence for the use of new raw materials and forms such as coix seeds and the segmented beads, respectively. The rich material record of beads from Barikot finds further support from the many diverse representations of beads depicted on art figurines, statues, paintings, coins, and seals, which indicates the value attached to beads as objects of adornment and value during this dynamic time.

BIBLIOGRAPHY

ABRAHAM, S. A.

(2013) In Search of Craft and Society: The Glass Beads of Early Historic Tamil South India, in S. A. Abraham, P. Gullapalli, T. P. Raczek and U. Z. Rizvi, eds., *Connections and Complexity: New Approaches to the Archaeology of South Asia*: 223-238. Walnut Creek California.

(2016) Glass Beads and Glass Production in Early South India: Contextualizing Indo-Pacific Bead Manufacture, *Archaeological Research in Asia*, 6: 4-15.

AHUJA, N. P.

(2018) *Art and Archaeology of Ancient India: Earliest Times to the Sixth Century*. Oxford.

ARORA, R. K.
(1977) Job's-Tears (Coix lacryma-jobi): A Minor Food and Fodder Crop of Northeastern India, *Economic Botany*, 31: 358-366.

BECK, H.
(1941) The Beads from Taxila, *Memoirs of the Archaeological Survey of India*, 65: 1-48.

BELLINA, B. AND I. GLOVER
(2004) The archaeology of early contact with India and the Mediterranean world, from the fourth century BC to the fourth century AD, in I. Glover and P. Bellwood, eds., *Southeast Asia: From prehistory to history*: 68-88. London.

CARTER, A. K.
(2013) *Trade, exchange, and socio-¬political development in Iron Age (500 BC - AD 500) mainland Southeast Asia: An examination of stone and glass beads from Cambodia and Thailand*. Unpublished PhD dissertation, University of Wisconsin-Madison.
(2016) The Production and Exchange of Glass and Stone Beads in Southeast Asia from 500 BCE to the early second millennium CE: An assessment of the work of Peter Francis in light of recent research, *Archaeological Research in Asia*, 6: 16-29.

CHERIAN, P. J., R. TOMBER, S. A. ABRAHAM, A. GIUMLIA-MAIR, G. O. KELLY, AND P. NAYAR
(2016) Items of Personal Adornment from Pattanam, Kerala, *Journal of Indian Ocean Archaeology*, 12: 34-63.

DEO, S. B.
(2000) *Indian beads: a cultural and technological study*. Pune.

DERANIYAGALA, S.
(1972) The citadel of Anuradhapena 1969: excavations in the Gedige area, *Ancient Ceylon*, 2: 48-169.

DIKSHIT, M. G.
(1952) Beads from Ahichchhatra, U.P., *Ancient India Bulletin of the Archaeological Survey of India*, 8 33-63.

FRANCIS, P.
(1984) Plants as Human Adornment in India, *Economic Botany*, 38: 194-209.
(1989) Glass Beads in Asia: Part I. Introduction, *Asian Perspectives*, 28: 1-21.
(1990) Glass Beads in Asia Part Two. Indo-Pacific Beads, *Asian Perspectives*, 29: 1-23.
(2002) *Asia's Maritime Bead Trade: 300 B.C. to the Present*. Honolulu.

HEO, J.
(2018) *Urbanism and Polity Interaction at Mahan: A study of Early State Formation in the Proto-Three Kingdoms Period (c. 100 BCE–300 CE), South Korea*. Unpublished PhD dissertation, University of Wisconsin-Madison.

KASHANI, N. B., K. ROUSTAEI, AND T. STÖLLNER
(2011) Iron Age Amber Beads from Vešnave/Iran, *Archäologische Mitteilungen aus Iran und Turan*, 43: 71-78.

LAW, R. W.
(2011) Inter-Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa's Rock and Mineral Assemblage, Occasional Paper 11, in T. Osada and H. Endo, eds., *Linguistics, Archaeology and the Human Past*. Kyoto.

MEHRA, K. L., K. C. KANODIA, and R. N. SRIVASTAVA
(1975) Folk Uses of Plants for Adornment in India, *Economic Botany*, 29: 39-46.

RABBANI, M. A.
(2020a) The typology, production and adornment of Gandharan beads during the mid-3rd century BCE – 1st century CE: Preliminary results from Barikot, Swat, Pakistan, *Archaeological Research in Asia*, 24: 1-20.
(2020b) Barikot Beads and Gandharan Art Ornaments: A Critical Study of Adornment Practises during the Kushana Period of Pakistan, *BEADS: Journal of the Society of Bead Researchers*, 32: 25-40.
(2025) Beads from the Excavations in the Historic Settlement at Bīr-koṭ-ghwaṇḍai (Barikot) Swat, Pakistan (1984-2020). Pakistan: Sang-e-Meel Publications.

RODZIEWICZ, M.
(1984) *Les habitations romaines tardives d' Alexandrie a la lumiere des fouilles polonaises a Korn el-Dikka. Alexandrie III*. Warsaw.

SPAER, M.
(1993) Gold-glass Beads. A review of the evidence, *Beads: Journal of the Society of Bead Researchers*, 5: 9-25.

STEWART, R. R.
(1972) *Flora of West Pakistan. Annotated Catalogue of Vascular Plants of West Pakistan and Kashmir*. Karachi.

TOSI, M.
(1969) Excavations at Shahr-i-Sokhta. Preliminary report on the second campaign, September-December 1968, *East and West*, 19: 283-386.

FIGURES

Figure 1. Long cylindrical Indo-Pacific glass bead (BKG 4464). Photograph by M. A. Rabbani.

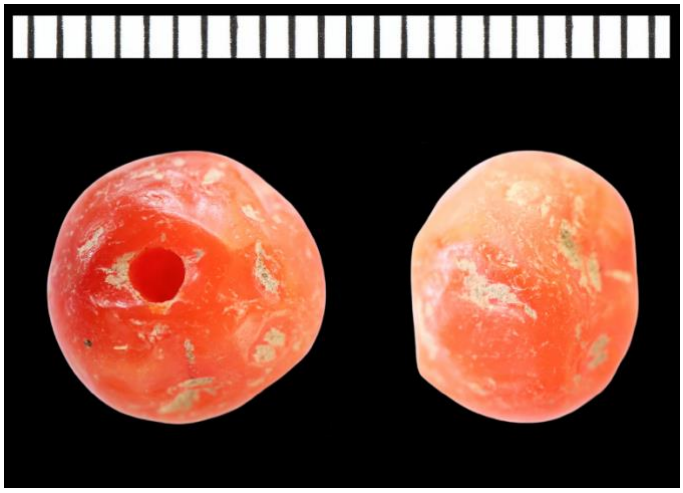

Figure 2. Short barrel bead of carnelian (BKG 4808). Photograph by M. A. Rabbani.

Figure 3. Very short barrel bead of amber (BKG 2055). Photograph by M. A. Rabbani.

Figure 4. Oval barrel bead of coral (BKG 4794). Photograph by M. A. Rabbani.

Figure 5. Segmented bead of glass (BKG 4760). Photograph by M. A. Rabbani.

Figure 6. Hexagonal-faceted long barrel bead of rock crystal (BKG 4683). Photograph by M. A. Rabbani.

Figure 7. Irregular spherical/globular bead of carnelian (BKG 2056). Photograph by M. A. Rabbani.

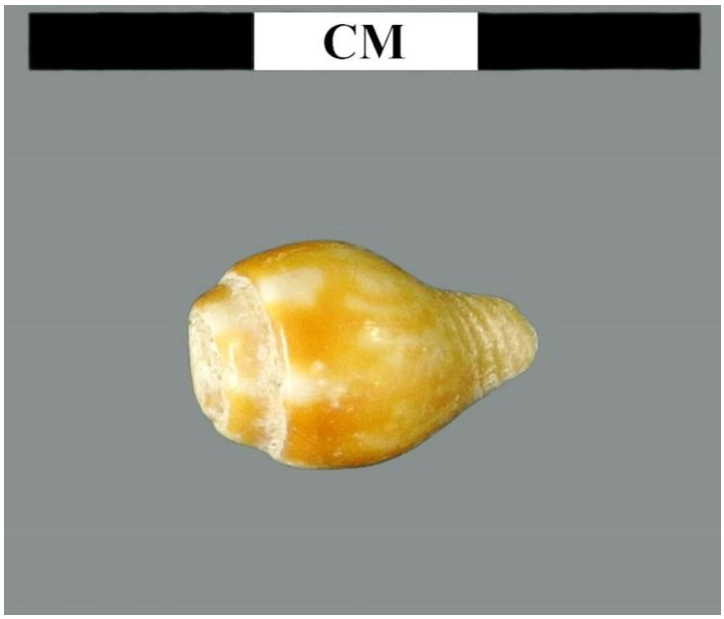

Figure 8. Perforated sea snail (BKG 4774). Photo courtesy of the Italian Archaeological Mission.

Figure 9. Long cylindrical dentalium shell (BKG 4696). Photo courtesy of the Italian Archaeological Mission.

Figure 10. Perforated coix seed (BKG 4670). Photograph by M. A. Rabbani.

Material \ Shape	Barrel	Cylindrical	Areca nut	Spherical	Irregular spherical/ Globular	Cowrie shell	Sea snail	Total
Glass	6 (24%)	4 (16%)		1 (4.0%)				11 (44%)
Terracotta	1 (4.0%)		3 (12%)					4 (16%)
Marine shell	2 (8.0%)	1 (4.0%)						3 (12%)
Carnelian	2 (8.0%)							2 (8.0%)
Lapis lazuli					1 (4.0%)			1 (4.0%)
Amber	1 (4.0%)							1 (4.0%)
Coral	1 (4.0%)							1 (4.0%)
Perforated sea snail							1 (4.0%)	1 (4.0%)
Cowrie shell						1 (4.0%)		1 (4.0%)
Total	13 (52%)	5 (20%)	3 (12%)	1 (4.0%)	1 (4.0%)	1 (4.0%)	1 (4.0%)	25 (100%)

Table 1. Numbers and percentage of bead materials and shapes during the Turk Shahi period. Compiled by M. A. Rabbani.

Material \ Shape	Barrel	Cylindrical	Areca nut	Ghata-shaped	Spherical	Cowrie shell	Biconical	Irregular spherical/ Globular	Coix seed	Segmented	Cornerless cube	Rectangular long rectangular	Sea snail	Unidentified	Total
Glass	19 (24.35%)	10 (12.82%)			2 (2.56%)		1 (1.28%)	2 (2.56%)		1 (1.28%)					35 (44.87%)
Terracotta			4 (5.13%)	4 (5.13%)			2 (2.56%)								10 (12.82%)
Marine shell	2 (2.56%)	2 (2.56%)						1 (1.28%)							5 (6.41%)
Carnelian	1 (1.28%)	1 (1.28%)			1 (1.28%)			2 (2.56%)							5 (6.41%)
Cowrie shell						4 (5.13%)									4 (5.13%)
Lapis lazuli	2 (2.56%)						1 (1.28%)				1 (1.28%)				4 (5.13%)
Dentalium shell		2 (2.56%)													2 (2.56%)
Coix seed									2 (2.56%)						2 (2.56%)
Quartz/ rock crystal	2 (2.56%)														2 (2.56%)
Chloritic schist												(1.28%)			1 (1.28%)
Sea snail													1 (1.28%)		1 (1.28%)
Unidentified		2 (2.56%)												5 (6.41%)	7 (8.97%)
Total	26 (33.33%)	17 (21.79%)	4 (5.13%)	4 (5.13%)	3 (3.84%)	4 (5.13%)	4 (5.12%)	5 (6.41%)	2 (2.56%)	1 (1.28%)	1 (1.28%)	1 (1.28%)	1 (1.28%)	5 (6.41%)	78 (100%)

Table 2. Numbers and percentage of bead materials and shapes during the Hindu Shahi period. Compiled by M. A. Rabbani.