RESEARCHING THE WORLD’S BEADS:
AN ANNOTATED BIBLIOGRAPHY

Compiled by Karlis Karklins
Society of Bead Researchers

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CENTRAL AND SOUTH ASIA

The countries covered in this section include: Afghanistan, Bangladesh, Bhutan, India, Kazakhstan, Kyrgyzstan, Maldives, Nepal, Pakistan, Sri Lanka, Tajikistan, Turkmenistan, and Uzbekistan. See also the two specialized theme bibliographies and the General and Miscellaneous bibliography as they also contain reports dealing with these countries.

Abraham, Shinu Anna
Concentrates on the beads recovered from Pattanam in southern India.

Reviews the available data for glass in pre-modern South India, including recently discovered sites in southern Andhra Pradesh, India, and considers strategies for reconstructing the broader socio-economic settings in which early South Indian Indo-Pacific bead manufacture took place.

Ahmed, Mukhtar
Chapter 19, Miscellaneous Crafts and Technologies, deals with stone beads.

Ajithprasad, P. and Marco Madella
Discusses the stone-bead industry at a site in west-central India including information about the sources of the raw material, drilling techniques, and trade.
Allen, Jamey D.
Discusses the “etched” stone beads so prevalent in India and Burma, and illustrates 40 decorative varieties from Mizoram, India.

Avanesova, N.A.
Spherical bronze beads and a lapis lazuli pendant were found in one grave within this 2nd-millennium BC cemetery in Southern Uzbekistan; beads of other materials are reported from Andronovo contexts.

Ayyar, Sulochana
Discusses the costumes and ornaments (including beads and pendants) of ancient India.

Barthélemy de Saizieu, B.
On hard-stone beads from Nausharo, a Harappan site in Pakistani Baluchistan which was occupied 2800-2000 BC.

Discusses the beads and pendants from the Pre-Ceramic Neolithic site of Mehrgarh in Pakistan.

Barthélemy de Saizieu, B. and A. Bouquillon
Stone beadmaking at Neolithic Mehrgarh, Pakistan.

South Asian Archaeology 1997.

Pakistan and India.

Barthélemy de Saizieu, B. and M. Casanova
On the production of stone beads at a 5th-2nd-century site in Kandahar, Afghanistan.

Basa, Kishor K.

A comprehensive listing of early glass beads from India and Southeast Asia related to theories of early exchange systems.


Surveys bead research in South Asia prior to 1947, and then discusses such aspects of bead study as chronology, chronology, typology, technology, trade, and symbolic value.

Discusses the advances made in bead research over the years and stresses its importance in understanding past cultures.

Bednarik, Robert G.
A review is presented on the evidence for Late Pleistocene ostrich eggshell engraving and shaping in India. The engraved specimen from Patne, dated to c. 25,000 years ago, is considered authentic, as are some specimens of ostrich eggshell beads. All other examples of putative carving on ostrich eggshell from India are considered to be probably of natural origin.

The Upper Palaeolithic of India has yielded three ostrich eggshell beads, two from Bhimbetka III A-28 and one from Patne.

**Begley, V. and R.D. De Puma**
See K.V. Raman’s section on the bead trade of Tamil Nadu, India (pp. 131-133).

**Behera, Pradeep K. and Sakir Hussain**
Reports on the stone beads and production waste found at a site in east-central India attributed to the latter part of the 4th and 3rd centuries BC.

2019 Early Historic Gemstone Bead Workshops at the Badmal Asurgarh and Bhutiapali in the Middle Mahanadi Valley Region, Odisha, India. *Ancient Asia* 10(2); https://www.ancient-asia-journal.com/articles/10.5334/aa.169/.  
Limited excavations at both the sites suggest their significant role in the Early Historic trade and exchange network in the Middle Mahanadi Valley riparian system and probably beyond.

**Belcher, William R.**
Several shark and ray vertebrae appear to have been drilled to form beads. They relate to the Indus Valley Tradition of northwestern India and Pakistan (ca. 3000 to 1700 BC).

**Bellina, Bérénice**
Agate and carnelian beads are used to examine early exchange between India and Southeast Asia.

**Bernier, Hélène**
Discusses the stone-bead workshops excavated at the Moche capital in northern Peru.
Bhan, Kuldeep K.

An overview of the bead industry at a site in west-central India with stress on the Harappan period.

Bhan, Kuldeep K., Jonathan Mark Kenoyer, and Massimo Vidale

Documents the existing traditional Khambhat stone-bead industry – the largest in the world – which is on the threshold of being transformed by modern technology and socio-economic change.

Bisht, R.S.

Relates the history of bead jewelry in India, emphasizing the Harappan Culture, using both literary and archaeological sources. The article also discusses the various stones and other materials utilized in bead production.

Bopearachchi, O.

Summary of five years research on trade ports on the south and west coast of Sri Lanka. See p. 16 and fig. 17 for beads of carnelian, lapis lazuli, amethyst, quartz, coral, glass, bone, and terra cotta from Ridiyagama and Giribawa amongst which glass dominates. Sodium, potassium, and mixed alkali glasses are all present.

Bopearachchi, O. And R.M. Wickremesinhe

Discusses glass and stone beads from several sites in Sri Lanka and South India with a catalog of representative types.

Bose, Utsa

Provides an overview of ancient Indian ornaments, beads and pendants included.
Bouquillon, A., B. Barthelemy de Saizieu, and A. Duval

Research reveals that the emergence of the first glazed beads goes back to the ancient Chalcolithic period (around 4000 BC) and that this use of glaze has undergone some changes during the following two millennia.

Boussac, Marie-Françoise and M. Shafiqul Alam

Excavations at the earliest urban center in Bengal, Bangladesh, yielded beads of glass and semi-precious stones.

Boussac, Marie-Françoise and Jean-François Salles (eds.)

See index for beads, glass bead manufacturing, and glass objects.

Brunet, Olivier

Using a technological and morphological approach, this study attempts to determine the origin of the beads and pendants found at two Bronze Age sites in Uzbekistan: Sapalli tepe and Dzharkutan. Materials include stone (agate, carnelian, jasper, lapis-lazuli, turquoise), synthetics (faience, frit), and metal (gold, copper).


More than 100,000 stone beads (agate, carnelian, lapis lazuli, green softstone, etc.) recovered from a site in Oman occupied from the Neolithic to the Bronze Age are examined from a morphological, dimensional, and especially technological perspective.

Campbell Cole, Barbie

The heirloom beads, known respectively as khaji and deo moni, are orange Indo-Pacific beads of a type traded from southeast India (probably Karaikadu) between 200 BC and AD 200. They
were found by the Kachin and Naga in ancient graves. The trade that brought these beads to the region operated on a considerable scale. Ivory and fragrant oils destined for the Mediterranean world were exchanged for Indo-Pacific beads, cowries, chank shells, and carnelian beads, ornaments still worn by the Kachin and Naga today. India, Burma.

The Tani tribes wear various heirloom necklaces including those composed of highly distinctive melon-shaped beads of wound turquoise-blue glass. These are unique to central Arunachal and were already of considerable age and very highly prized in the early 19th century. Their bubbly opaque blue glass and wound method of production suggest a Chinese origin.


A site of the Early Historic Period (500 BC-AD 300) in West Bengal, India, yielded a wide variety of beads of terra cotta, stone, bone, faience, glass, and metal.

The bead assemblage was generally found to be quite homogenous throughout the study area with no strict regional patterning.

A section of the article is devoted to a discussion of the carnelian and agate beads in the region and how they may relate to the lithic deposits at Jebel al-Ma’ataradh.

A Hunnish woman’s outfit includes chalcedony, glass, and coral beads of several shapes, probably imported from Central Asia or East Turkestan (p. 591, fig. 6).
Coningham, R.A.E.
A large tell at the early historic capital Anuradhapura in Sri Lanka has produced artifacts from the Balangoda Mesolithic to the 13th century AD. Numerous beads of glass and various other materials have been found.

As for Coningham (1990).

Dandwate, Pramod, Gurudas Shete, and Maya Patil
Excavations at Shiur in the Maharashtra state of India produced beads of glass, shell, and various stones, as well as areca-nut-shaped beads of terra cotta.

Dangi, Vivek
Artifacts recovered from an ancient site in norther India include beads of terra-cotta and semi-precious stones.

Dehigama, Kanchana
Summarizes what is known about the production of stone and glass beads in ancient Sri Lanka.

Deo, S.B.
2000 *Indian Beads: A Cultural and Technological Study*. Deccan College Postgraduate and Research Institute, Pune, India.
Presents the results of Prof. Deo’s extensive research on beads and pendants from archaeological sites and historical documents in India. See Kenoyer (2000-2001) for a review.

Derevyanko, A.P. and D. Dorj
Presents an overview of early cultures in Kazakhstan, southern Siberia, and Mongolia. Beads and pendants of shell, bone, perforated teeth, and ostrich eggshell from selected sites are discussed.
Deshpande-Mukherjee, Arati

Deshpande-Mukherjee, Arati and Vasant Shinde

Durani, F.A, I. Ali, and G. Erdosy
1994 The Beads of Rehman Dheri. *Ancient Pakistan* 10:15-81. Describes the material from this important Early Harappan urban site in the Gomal Plain, northwestern Pakistan.

Durante, Silvio

Dyrdahl, Eric

Located in Kyrgyzstan, Obishir-5 is one of the most important Final Pleistocene to Early Holocene sites in western Central Asia. The Early Holocene component (10,700-8,200 cal BP) yielded one of the oldest and largest assemblages of soft stone ornaments known from the region. It was possible to reconstruct the chaîne opératoire of these artifacts which include three pendants, one “labret”-like ornament, and one ornament blank.

**Francfort, H.-P.**  

Beads of various materials from a Hellenistic settlement reflect links with East and West.

**Francis, M.P.D.L. and P.G.R Dharmaratne**  

A deposit of abandoned beads, intaglios, glass, coins, etc., in the bund (retaining bank) of a disused reservoir. Many objects are of precious and semi-precious stones, some abandoned partly made.

**Francis, Peter, Jr.**  

An exploration of the history and myth of the patron saint of the western Indian agate bead industry.


Discusses the stone beadmaking industries at the ancient sites of Kotalingala and Arikamedu in South India.

*Ornament* 10(1):54-57, 74-78.  
On Indo-Pacific beads and their manufacture.

1986  *Collar Beads: A New Typology and a New Perspective on Ancient Indian Beadmaking.*  
*Bulletin, Deccan College Postgraduate and Research Institution* 45:117-121.


A comparison of the amethyst and citrine beadmaking processes in South India at Kotalingala (Andhra Pradesh) and Arikmedu (Pondicherry) over the last four centuries BC.

Summary of beadmaking of various materials in India.

      Pondicherry Museum Publication 2.
   Southeastern India.

   A survey of beads made in India in both ancient and modern times.

   Important Sri Lankan emporium site of the 1st millennium AD. Discusses its bead trade
   connections from Rome to China, and manufacturing techniques of “Indo-Pacific” and other
   local types of bead.

   Glass and stone bead production at ancient Arikamedu, India, and associated sites.

   An account of Pumtek beads, their history and manufacture, including how to distinguish
   modern from ancient ones.

1994  Review of *Glass, Glass Beads and Glassmakers in Northern India*, by Jan Kock and

1996  Beads and Selected Small Finds from the 1989-92 Excavations. In *The Ancient Port of
      Begley. École française d’Extrême-Orient, Centre d’histoire et d’archéologie, Mémoires
      Archéologiques 22. Pondicherry.
   India.

   Describes the changes in conch bangle production, the modern bead industry of Gujarat, and the
   polishing methods used for stone beads in Khambat (Cambay), India.

   The stone beadmaking industry of South India from ca. 1000 BC to the beginning of the 20th
   century.

   Using ancient sources and more recent findings, Francis points out the importance of southern
   India as an area where stone beads were made, despite being overshadowed by the Cambay area.
2002  *Asia’s Maritime Bead Trade: 300 B.C. to the Present.* University of Hawai‘i Press, Honolulu.

A book with a broad scope. In addition to the production, use, and provenance of beads involved in Asian maritime commerce, this book examines the importance of the bead trade for the economies of the countries involved and provides insights into the lives of its many participants: artisans, mariners, and merchants.


Summarizes the role of South India in the international trade in precious and semiprecious gem stones from early times.


South India.


Presents a very useful and impressive catalog of the beads recovered from this important Sri Lankan emporium site of the 1st millennium AD. See also Hannibal-Deraniyagala 2013.

**Francis, Peter, Jr. and G.L. Badam**


Shell bead sources and production at a Chalcolithic village in Maharashtra, western India.

**Frenez, Dennys, Michele Degli Esposti, Sophie Méry, and J.M. Kenoyer**


Discusses large fragments of three, almost identical, long biconical Indus-style beads made from a deep red-orange carnelian with notes on the drilling technique and origins.

**Gadzhiev, Magomed G., Philip L. Kohl, David Stronach, Ana María Arnanz, and Arturo Morales Muñiz**


Carnelian disc beads and tubular “paste” beads with a Caspian shell ornament were found in an Early Bronze Age (Kura-Araxes) burned building (p. 148, fig. 7). Daghestan, Russia.
Gaur, A.S., Sundaresh, and P.P. Joglekar  
Excavation of a protohistoric settlement on the northwest coast of India dating to the mid-3rd millennium B.C. yielded four terra cotta beads.

Gaur, A.S., Sundaresh, and Vardhan Patankar  
Beads were among the items produced at this site in northwestern India. $^{14}$C dates the material between 3470 ± 80 (cal. 3830–3640) and 1910 ± 80 (cal. 1950–1730) yrs BP.

Ghilzai, Shazia Akbar and Asma Kanwal  
Seeks to analyze the evil eye construct semiotically and its intricate relationship with fate and destiny within sociocultural value systems in Pakistan.

Guillaume, O. and A. Rougeulle  
Describes 43 beads in glass, resin, bronze, and many kinds of stone from a Hellenistic city in northern Afghanistan (pp. 56-58, pl.18, XV).

Gunasena, Kaushalya G.  
A detailed study of the beads of glass, stone, shell, and pearls recovered from seven sites in the study area.

Gupta, Sunil  
Proposes the idea of the Bay of Bengal Interaction Sphere as a necessary corrective in studies on ancient Indo-Southeast Asian contacts and early contacts between Southeast Asia and the wider Indian Ocean world. Beads enter into the discussion.

Gupta, S.P., Tejas Garge, Sonali Gupta, and Anuja Geetali  

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**Gaur, A.S., Sundaresh, and Vardhan Patankar** 2005 Ancient Shell Industry at Bet Dwarka Island. *Current Science* 89(6):941-946. Beads were among the items produced at this site in northwestern India. $^{14}$C dates the material between 3470 ± 80 (cal. 3830–3640) and 1910 ± 80 (cal. 1950–1730) yrs BP.


**Guillaume, O. and A. Rougeulle** 1987 *Fouilles d’Aï Khanoum, VII: Les petits objets*. Mémoires de la Délégation Arch. Franç. en Afghanistan XXXI. Describes 43 beads in glass, resin, bronze, and many kinds of stone from a Hellenistic city in northern Afghanistan (pp. 56-58, pl.18, XV).

**Gunasena, Kaushalya G.** 2018 *Interactions between Sri Lanka and South India in the Early and Middle Historic through the Perspective of Personal Adornment*. Ph.D. thesis. Department of Archaeology, University of Exeter. A detailed study of the beads of glass, stone, shell, and pearls recovered from seven sites in the study area.


Located in Gujarat State, India, the site yielded beads in a variety of materials including stone, terra cotta, glass, copper, and arecanuts. Cowries were also found, as was refuse from the production of stone beads.

**Hanlon, Julie A.**

**Hannibal-Deraniyagala, Anne S.**


**Haque, Enamul (ed.)**
2001  *Excavation at Wari-Bateshwar: A Preliminary Study. The International Center for Study of Bengal Art, Dhaka*. Studies in Bengal Art Series 5. Several articles mention beads of semi-precious stone and glass from this site in Bangladesh occupied from ca. 200 BC onward.

**Heit, Ilia**
The archaeological remains indicate production of a distinct type of disc bead from one species of the genus *Didacna*. They also allow a closer look at manufacturing techniques and raise questions about craft specialization as well as the presence of a long tradition of shell jewelry in the Circumcaspian region.

**Herrmann, Georgina, K. Kurbansakhatov, and St John Simpson**
A small number of carnelian, unidentified green and white stone beads, and a blue glass bead were recovered from 4th-5th-centuries Sasanian occupation contexts in Turkmenistan. Extensive sieving has failed to significantly affect bead recovery rates.

**Hodjash, Svetlana**
Some beads are included in this useful survey of surprisingly far-flung discoveries in Russia. Extensive bibliography.

**Insoll, Timothy, David A. Polya, Kuldeep Bhan, Duncan Irving, and Kym Jarvis**
2004 Towards an Understanding of the Carnelian Bead Trade from Western India to Sub-Saharan Africa: The Application of UV-LA-ICP-MS to Carnelian from Gujarat, India, and West Africa. *Journal of Archaeological Science* 31:1161-1173.
Outlines the results of chemical analysis and subsequent principal component analysis undertaken in an attempt to differentiate Gujarati and West African carnelian samples, and thus begins to allow inferences to be made regarding a possible trade in carnelian between these two regions primarily in the medieval period, based upon more objective data.

**Isakov, A.I. and T.M. Potemkina**
Beads, probably 13th-11th centuries BC (figs. 4, 5, 8). In Russian with English summary.

**Jahan, Shahnaj Husne**
This site in Bangladesh was a production center for semi-precious stone beads as indicated by the recovery of a large quantity of core and waste materials such as stone blocks, flakes and chips, non-perforated, semi-perforated, and broken pieces of stone beads. The recovered beads are described briefly and include those of glass and terra cotta.
Jamal Hasan, S.
India.

Jamir, Tiatoshi and Ditamulü Vasa
Investigates the antiquity of the use of carnelian and glass beads in traditional attire of the inhabitants of Nagaland, India.

Jayakumar, P.
South India.

Kamaldinov, I.
A wooden box found in the fortress wall at Usharal in southeastern Kazakhstan contained a treasure trove of jewelry from the 13th century. It includes three necklaces of silver beads; two copper earrings with pearls; a coral necklace; two necklaces of dark red carnelian; one string of turquoise beads; some made of agate beads; a set of possible pearl earrings; individual lapis lazuli beads; and rock crystal and jade pendants.

Kanungo, Alok Kumar
Investigates traditional bead use among the Juang of Orissa State, going back 130 years, and examining the bead types and the changes in bead use.

Presents an overview of the history of glass in India and its origins, including Indo-Pacific bead production. Also provides a description of present-day bead production at Panaidupet, and the Bondo people of Orissa as bead-users.
2002  Bondo Beads: An Ethnoarchaeological Approach. *South Asian Studies* 18:121-128. The Bondo are a small isolated Austro-Asiatic linguistic group in Orissa, eastern India. Woven clothing is minimal but they wear abundant beads, mainly glass which are bought in weekly markets from itinerant traders. The beads themselves are for the most part made at Renigunta in Andhra Pradesh some 400 km to the south.

2004  *Glass Beads in Ancient India: An Ethnoarchaeological Approach*. British Archaeological Reports S1242. Glassmaking and bead production were small-scale industries in India, originating some time in the 1st millennium BC. Although evidence from 212 ancient sites, 36 of which are claimed to be manufacturing sites, provides some insight into the context and date of the industry, issues concerning manufacturing methods, function, and symbolic value seem only to be accessible through ethnographic analogy. This study combines both archaeological and ethnographic data, as well as literary evidence, to create a history of the bead industry in India.

2004  *Glass Beads in Ancient India and Furnace-Wound Beads at Purdalpur: An Ethnoarchaeological Approach*. *Asian Perspectives: Journal of Archaeology for Asia and the Pacific* 43(1):123-150. An ancient and important technique of bead manufacture still used today is the “furnace-winding” method. Beads produced by this technique have been found in large numbers at various archaeological sites. This paper discusses the details of beads and bead waste produced by the technique and the specific criteria of production.

2007  Impact of Social and Political Change on the Use of Beads among the Konyaks. In *International Bead & Beadwork Conference*, edited by Jamey D. Allen and Valerie Hector. Rezan Has Museum, Istanbul. The Konyaks, one of the major Naga tribes in Nagaland, northeastern India, are one of the most complexly ornamented peoples in the world. Bead materials include glass, shell, stone, teeth and tusks, claws/horns, metal, bone, woods, seeds, hair, and fiber. Spacers are used such that all ornaments rest flat on the body. The spacer are predominantly made of bone, ivory, wood, bamboo, and recently also metal.

2009  Sacred Palm-Leaf Beads. *Beads: Journal of the Society of Bead Researchers* 21:55-60. Reprinted from *The Bead Forum* 37:9-15 (2000). These beads each consist of 31 discoid, centrally punched palm leaflets, 29 of which are inscribed with Hindu religious texts. The author discusses four strings and one pendant composed of such beads, the texts found on them, their antiquity, the technique of making them, and their rosary-like function. India.

Despite intense cultural pressures from Sanskritization and Westernization, customs associated with death are extremely slow to change because death carries high emotional value and is tied to deeply held afterlife beliefs. The study of death rituals, burial practices, and grave goods may identify persisting ancient traditions that might help determine the origins of the Naga. India.

Major report on the findings, including beads and pendants, at Kopia in Uttar Pradesh, a site that was occupied from the 8th century BC to the 4th century AD.

An updated Indian printing of Glass Beads in Ancient India (Kanungo 2004).

The only surviving traditional Indo-Pacific bead industry for at least the last two hundred year is at Papanaidupet, Andhra Pradesh, India. Having retained many traditional production methods, it has been crucial in answering many archaeological questions relating to glass in general and glass beads in particular.

Reports on the changes that have occurred in the Khambat (Cambay) bead industry, with emphasis on the source of the raw material, technology, organization, and commerce.

This paper records the process of making millefiori beads as practiced in Purdlinagar as a model for interpreting associated archaeological findings.

Kanungo, Alok Kumar (ed.)
2017 Stone Beads of South and Southeast Asia: Archaeology, Ethnography and Global Connections. Indian Institute of Technology Gandhinagar.
This is the most comprehensive book on stone beads. With contributions from 25 leading scholars, the book dwells on related matter from ancient as well as modern India and other regions of Asia. The individual papers are listed elsewhere in this bibliography. Reviewed by Karklins (2018).
Kanungo, A.K. and V.N. Misra
Kopia is a pre Indo-Roman contact glass manufacturing site in Uttar Pradesh, northern India.
Relevant finds include 24 glass beads, tubes of Indo-Pacific glass, 2 glass collar beads, 1 millefiori bead, and 2 quartz, and 2 banded agate beads. Two crucibles and much glass waste, crucible fragments, and many lumps of glass all show that Kopia was a major glass-manufacturing site during the early historic Buddhist period.

Kanungo, Alok Kumar, Virendra Nath Misra, and Vasant Shinde
Discusses the beads recovered from a number of Chalcolithic sites in western India, with emphasis on the oldest village in India: Balathal. Materials include various crystalline and cryptocrystalline stones, glass, faience, bone, ivory, shell, coral, terra cotta, and steatite; 3rd-2nd millennia BC.

Karanth, R.V.

Discusses basic Cambay (India) stone beadmaking techniques with clear line drawings of the processes.

Karklins, Karlis

Kaspers, Floor
Discusses the current production of glass beads, both wound and drawn, in India.

Katsuhiko, Oga and Sunil Gupta
https://www.academia.edu/4776952/.
Focuses on the identifying the sources of the Indo-Pacific beads found at Yayoi sites in Japan.

Kelly, Gwendolyn O.
Stone ornament production and trade in these objects were important aspects of economic life during the Early Historic period in South India (300 BCE-400 CE). This report focuses on the stone beads and bead blanks recovered from Pattanam. It appears that the local craftspeople focused on the production of carnelian and agate beads. To a lesser extent, they were also working locally available semi-precious stones such as quartz, citrine, and garnet.

Among the various crafts practiced at Kodumanal (400 BCE-400 CE) in South India was stone beadmaking. Numerous spindle whorls represent textile production.

An in-depth study of stone bead and ornament production and technology in South India.

Argues that trade during the Iron Age in South India was not systematic, but rather opportunistic and ad-hoc, primarily down-the-line trade, without regular access to specific non-local resources, with the possible exception of carnelian and steatite.

Argues that the South Indian producers of stone beads and ornaments should be considered as a single community of practice, not as distinct ethnic groups, as Francis (2002, 2004) suggested. The community of practice in question, that of lapidary workers, was not homogeneous or rigidly bounded, but rather, was a community with members distributed across many sites in the region, connected by their shared practices and knowledge, and a heterodox acceptance of diverse ways of engaging in that practice.

Kenoyer, J. Mark
The production and use of marine shell objects during the Mature Indus Civilization (2500-1700 BC) are used as a framework within which to analyze developments in technology, regional variation, and the stratification of socio-economic systems.

On the materials, manufacture, mode of wearing, and social significance of beads from the Neolithic to the Harappan period. A major study, illustrated.

Various forms of beads and pendants are discussed.

Describes how the increased demand for antique beads has led to the wholesale destruction of ancient sites and is now seriously threatening the archaeological record of past cultures. The author considers replicas will satisfy the demand for antique-looking beads and provide income for traditional, non-mechanized, craftsmen. Describes and shows replica stone beads from India.

Extracts maximum information through the close study of beads from many angles (e.g., the perforations of long carnelian beads reveals drill types which may be evidence for Sumer-Indus links).


2003 Beads (pp. 54-55), Faience (p. 187), Bangles (pp. 51-52), Glass (pp. 251-252), Jewelry and Ornament (pp. 308-309), Material Culture (pp. 391-393), Metal and Metalworking (pp. 398-402), Pottery (pp. 481-483), Tiles and Tile making, Terra-Cotta (pp. 606-607). In *South Asian Folklore: An Encyclopedia – Afghanistan, Bangladesh, India, Nepal, Pakistan, Sri Lanka*, edited by Margaret A. Mills, Peter J. Claus, and Sarah Diamond. Routledge, New York.

Presents an excellent overview of the different materials and technologies used to produce beads of various materials at Harappa, Pakistan. Stone, shell, terra cotta, faience, glass, metal, and seeds are covered.


Focuses on the northwestern regions of the Indian subcontinent with special emphasis on the urban phase of the Indus Tradition. Basic technologies for the production of stone beads are presented with detailed discussions of shaping and drilling techniques. Pakistan.


Reviews some of the evidence for Indus internal and external trade and presents some new information based on comparative analysis of shell artifacts and beads from the Indus Valley and the Royal Cemetery at Ur.


Presents an overview of the types of artifacts that inform us about ancient Harappan measurement systems, in order to gain insight into their concepts of order and cosmology. Beads of terra-cotta and stone are discussed. Pakistan.


Provides an excellent overview of stone beadmaking with emphasis on the drilling aspect.

Presents a new approach to the identification, documentation, and interpretation of Harappan stone beads, and itemizes what information needs to be documented and how.

**Kenoyer, J.M. and K.K. Bhan**

2004  
Discusses the role of African Indians in the stone beadmaking industry.

**Kenoyer, J.M., M. Vidale, and K.K. Bhan**

1991  
Compares current beadmaking in Kambhat (Cambay) with Harappa, Pakistan, and other ancient sites.

1995  


2011  
Provides a brief overview of the beads recovered from this site in western India.

**Khlopin, Igor N.**

1997  
*Eneolithic Period of South-Western Turkmenistan*. Russian Academy of Sciences, Institute of History and Material Culture, St. Petersburg.  
Final report on the cemetery of Parkhai II in the Sumbar Valley. Copper, agate, calcite, carnelian, hematite, lapis lazuli, steatite, turquoise, “plaster” (gypsum?), mother-of-pearl, and bone beads are reported, many of which appear to have been worn as bracelets (pp. 135-136, 150, 162-163). Also drill fragments. Russian and English text.

**Kock, Jan and Torben Sode**

1995  
*Glass, Glass Beads and Glassmakers in Northern India*. THOT, Vanlose, Denmark.  
Presents a wealth of information on the modern glass bead and bangle industry of northern India. Numerous color photographs and b&w drawings. See Francis (1994) for a review.
Koiso, Manabu, Hitoshi Endo, and Ayumu Konasukawa  

Konasukawa, Ayumu, Hitoshi Endo, and Akinori Uesugi  
2011  Chapter 7. Minor Objects from the Settlement Area. In Excavations at Farmana: District Rohtak, Haryana, India, 2006-08, edited by V. Shinde, T. Osada, and M. Kumar, pp. 369-526. Indus Project, Research Institute for Humanity and Nature, Kyoto. The site yielded a wide variety of beads but especially those of terra cotta and various types of stone. They are attributed to the Harappan and Historical periods. Includes information regarding the drilling technology used based on silicone casts of the perforations.

Law, Randall  

Ludvik, Geoffrey  
2012  Stone Beads of Ancient Afghanistan: Stylistic and Technical Analysis. Field Notes: A Journal of Collegiate Anthropology 3(1):1-8. This study addresses antique stone beads made of agate, carnelian, turquoise, jasper, and lapis lazuli, and focuses on stylistic and morphological features as well as manufacturing techniques, specifically the nature of drilling used to perforate the beads.

Lukpanova, Ya. A.  

Describes the various ornamental elements (mostly gold) that adorned Sarmatian costume, including beads and pendants. In Kazakh, Russian, and English.

Mahroof, M.M.M.
A history of pearl fishing in Sri Lanka and the associated pearl trade over the last 2,000 years, written from the Sri Lankan point of view.

Manamendra-Arachchi, Kelum, Thusitha Mendis, K.H.S.R. Premarathne, and Anslem de Silva

On the discovery of perforated crocodile tooth ornaments among 41 drilled tooth artifacts belonging to eight vertebrate species uncovered during archeological excavations at the Jethawanarama monastic site, Anuradhapura.

Matarasso, P. and V. Roux

A quantitative model has been designed based on Cambay data to ascertain an indication of annual Harappan bead production and the number of workers involved, based on the number of beads found at different sites.

Matveyeva, N.P.

A western Siberian site of the Sargat Culture, 1st-3rd centuries AD, yielded cylindrical beads of “white and blue opal glass or jet, gilded truncated biconical ones, flat and composite,” and a small green cylindrical (segmented?) type “imitating Egyptian faience.”

Maurya, Jyotsna
Examines the different types of ancient amulets and pendants excavated in Maharashtra in western India, the techniques used in making them, their parallels in literary and sculptural representations, and Buddhist influence on them. Giving insights into the sources of raw materials used in these charms, the author takes up in detail the trade relations of a specific site with other contemporary sites. A major focus is on the Mauryan (ca. 322-183 BC) and Satavahana (50 BC to AD 250) periods. See Kenoyer (2002) for a review.

2000 Distinctive Beads in Ancient India: Amulets, Pendants, Eye-Beads and Etched Beads from the Prehistoric to Medieval Periods in India. British Archaeological Reports S864. Besides being used for decoration, distinctive beads also have religious, therapeutic, and superstitious reasons behind their use. Many of the beads under study have come from archaeological excavations.

Meadow, Richard H.
2002 The Chronological and Cultural Significance of a Steatite Wig from Harappa. Iranica Antiqua 37:191-202. Steatite beads with trefoil decoration figure in a discussion of the foreign objects rarely found in Harappan contexts; early 2nd millennium (pp. 197-199, fig. 4). Pakistan.

Mei, J. and C. Shell

Miller, Heather M.-L.

Minyaev, S.S.
Glass and stone beads are mentioned among grave goods of pastoral tribes in Siberia, 3rd century BC onwards, which cast light on the Huns. The archaeological evidence so far does not agree with Chinese written sources.

**Mohanty, Rabindra Kumar**


**Mohanty, R.K. and Tilok Thakuria**


Provides a detailed account of non-glass bead manufacture and trade in India from the upper paleolithic to early history. Includes information about manufacturing techniques, raw materials, and manufacturing centers in ancient India, as well as traditional bead manufacturing at Khambat, Gujarat.

**Moulherat, Christophe, Margareta Tengberg, Jérôme-F. Haquet, and Benoît Mille**


Analysis of a copper bead from a Neolithic burial (6th millennium BC) at Mehrgarh allowed the recovery of several threads, preserved by mineralization. They were characterized according to new procedure, combining the use of a reflected-light microscope and a scanning electron microscope, and identified as cotton (*Gossypium* sp.). The Mehrgarh fibers constitute the earliest known example of cotton in the Old World and put the date of the first use of this textile plant back by more than a millennium.

**Nath, Amarendra**


Thorough analysis of the recovered beads of stone, faience, bone, shell, metal, and terra cotta. Also includes a lengthy discussion of the Harappan stone bead industry.
Niharika
1993  *A Study of Stone Bead from Ancient India.* Bharatiya Kala Prakashan Prasad, New Delhi.

Onggaruly, Akhan (ed.)

The catalog illustrates sundry splendid ornaments in the collections of the National Museum of the Republic of Kazakhstan. These include individual beads and pendants of various materials as well as adornments that incorporate these elements. They cover a wide date range. In Kazakh, Russian, and English.

Paech, Hans-Jürgen

Beads from an important ancient site in northern India.

Pardhi, Mohan S., Virag Sontakke, Pradip Meshram, Anand Bhoyar, and Ashok Singh Thakur

Includes a discussion of the beads and pendants recovered from contexts ranging from the Early Iron Age to the medieval period at a site in west-central India.

Parmar, Narender

A village-to-village survey in the Bhiwani district of India located 66 sites, placing 40 of them on the archaeological map of India for the first time. The sites range in date from the early Harappan through the medieval period. Steatite, faience, and terra cotta beads were recovered.

Peyronel, L.

Some remarks on Harappan etched carnelian and segmented faience beads (pp. 209f.), Pakistan.

Pongpanich, Bunchar

Briefly surveys beads recovered from sites in Southeast Asia, primarily in Thailand, and discusses the bead trade with India.
Prabhakar, V.N.
Describes the beads of stone and faience recovered from a site in northern India.

Reports on the microscopic and statistical analysis of the large number of Ernestite drills recovered from the Harappan site of Dholavira in Gujarat, India. This has led to a better understanding of the different drill types and sub-types, and their attributes.


Prabhakar, V.N., R.S. Bisht, R.W. Law, and J.M. Kenoyer
Analyzes a large collection of Ernestite drill bits associated with the beadmaking industry at Dholavira, a site of the Harappan Culture in Gujarat, India.

Prasad, Ravi, V.N. Prabhakar, and Vikrant Jain
Aims to assess the geological and chemical properties of the various types of stone used to manufacture beads at Dholavira, a Harappan Culture site in Gujarat state, India, with an eye to determining their origins. It also delves into how the different stones are affected by physical and chemical weathering.

Rahman, Shah Sufi Mostafizur
Discusses stone beads recovered from one of the earliest urban archaeological sites so far discovered in Bangladesh.

On the glass beads excavated at an early urban site in Bangladesh.

2001  Glass Beads from Wari-Bateshwar, Bangladesh: A Preliminary Archaeological Analysis. 
Journal of Bengal Art 6:201-209.
The beads date to the period from the 3rd century BC to the 3rd century AD. Discusses the role the site may have played in the long-distance maritime trade.

Rajagopalan, Ashvin and Darshini Sundar
Outlines a study that aims to understand the bead trade in Tamil Nadu, India, from 400 BCE to the present day.

Rajan, K.
Utilizes information gathered from present-day gem cutters in Kangayam, central India, to better understand the technology used to produce beads recovered from excavations at nearby Early-Historic Kodumanal.

Ratnagar, Shereen
Discusses possible Indian sources (pp. 57-58) of the carnelian used in the production of long beads and etched varieties by Harappan artisans.

Ray, Sikhasree, Tilok Thakuria, and Santanu Vaidya
Focuses on the beads found in excavations at two major sites in Odisha, India: Sisupalgarh and Manikpatna. Materials include semiprecious stones, terracotta, glass, and organic.

Reade, Julian and Jonathan Taylor
Rienjang, Wannaporn Kay, Jonathan Mark Kenoyer, and Margaret Sax

Beads made of a variety of hard stones, as well as lapis lazuli, were found in relic caskets with other offerings or associated with relic deposits in stupas in three areas of Afghanistan. The various methods utilized in their production are discussed, as is evidence of use wear. Appendix 3 (pp. 231-234) presents Documentation of Bead Morphology, Manufacture and Use Wear.

Rossi-Osmida, Gabriele (ed.)

A Bronze Age necropolis in Turkmenistan with some bead-rich burials.

Roux, Valentine (ed.)

Contains nine articles on various aspects of beadmaking technology in the Indus Valley of India and Pakistan, as well as related topics. The articles are listed individually in the respective sections of this bibliography.

Roux, V., B. Bril, and G. Dietrich

Skills involved in knapping Harappan long carnelian beads are studied based on present-day bead knapping in Khambhat in order to assess their value as well as the knappers’ socio-economic status.

Roux, Valentine and Pierre Matarasso

Presents ethno-archaeological data on Harappan carnelian beads in Pakistan and India.

Aims to characterize the organization of the Harappan carnelian beadmakers in order to examine the relationship between artisans and elite, and the destination of beads.

**Roux, V, and J. Pelegrin**


Preliminary results of a detailed study of Cambay beadmakers and their relative level of competence as may be expressed in archaeological contexts. India.

**Ruikar, Tejal N., Prabodh Shirvalkar, Y.S. Rawat, and Satish Naik**


This paper is intended to provide an insight into the economic condition of the people at a rural Harappan site in India based on the study of the beads. Materials include various stones, terracotta, bone, shell, and faience.

**Salvatori, S., M. Vidale, G. Guida, and E. Masioli**


Surface finds include a number of copper beads as well as a silver example. Their production and composition are discussed.

**Sarianidi, Viktor**


Sumptuously illustrated volume of treasures from a Bactrian cemetery in Afghanistan, including fine decorated gold beads and beads made from various stones.


Mentions flat plaster beads, 3rd millennium (pp. 161f., fig. 54); bicones with dot-in-circle decoration, 2nd millennium (fig. 55); gold with enamel, 1st century AD (fig. 169).


Graves at the Graeco-Bactrian site of Tillya Tepe, Afghanistan, yielded sumptuous gold jewelry including faceted and granulated gold beads.


Beads of many types and interesting shapes contribute to a picture of a high and distinctive culture in northern Afghanistan during the Bronze Age (2nd millennium). Some beads are hard to date and may be later (pp. 9-16, figs. 9-16).
Sedov, A.V.
    Academy of Sciences of Tadjik S.S.R., Moscow.
Stone, bone, shell, coral, and glass paste beads of various shapes are illustrated; 4th-5th centuries
AD. In Tadjikistan. In Russian with brief English summary.

Selvakumar, V.
    Presents excerpts from early Tamil texts that mention beads and other ornaments; southern India.

    Provides a detailed statistical report on the ornaments donated to the various deities as recorded
in ancient temple engravings in southern India.

Sharma, D.V., V.N. Prabhakar, R. Tewari, and R.K. Srivastava
    10 kg of mainly gold and silver jewelry were recovered from a looted hoard at Mandi, northern
India. Two periods are represented at the site: Harappan (ca. 2000 BC) and Kushan (from AD
100). The hoard is thought to be Harappan. There are beads of gold, banded agate, onyx, copper,
and many etched beads with trefoil and eye designs.

Shinde, Vasant, Shreekant Jadhav, Prabodh Shirwalkar, Amol Kulkarni, Abhijit Dandekar, Shrikant Ganvir, P.P. Joglekar, Girish Mandke, Arati Deshpande-Mukherjee, Sushama G. Deo, S.N. Rajaguru, M.D. Kajale, and Satish Naik
    Excavations in the Junnar region of India yielded beads of semi-precious stone, faience, glass,
gold, and terra cotta, along with rings, bracelets, and other ornaments.

Simons, Angela
    A 4th-century-BC grave with 30 or more partly mummified individuals. Necklaces of seeds,
shell discs, carnelian, and also glass of several colors are present. Some bead types are among
the indicators of contact with Central Asian steppe cultures (p. 390).
Simons, Angela, Werner Schön, and Sukra Sagar Shresta
Burials in Chokhopani South Face localities were accompanied by small glass beads and tubes of brass and copper that either comprised necklaces or were braided onto garments. They date to the Licchavi or early Malla period.

Necklaces composed of glass, carnelian, shell, and seeds accompanied the individuals in Mebrak Collective Burial 63. Radiocarbon dating places the burials between 400 calBC-50 calAD.

Simpson, St John
Discusses the possible reasons for the survival and non-survival of several categories of small finds, including beads, at multi-period urban sites in Turkmenistan.

Singh, R.N.
The site is in the Benares (Varanasi) region of India, ca. 400-200 BC. In Russian.

Smagulov, E.A.
A woman’s burial in southern Kazakhstan included beads of carnelian, coral, glass, and amber, and bracelets of large amber beads, all described in some detail but not illustrated. Some perhaps came from Iran by trade or as booty.

Sode, Torben
Beads of clay, stone, bone, shell, metal, and glass were recovered from several sites occupied during the 1st millennium BCE and the 1st millennium CE.

Excavation of a site in Bukhara, Uzbekistan, yielded five beads made of glass paste, possibly with gilding inside, bone, and turquoise. Of particular interest is a small tubular bead, perhaps made of Egyptian faience and partially wrapped in gold. The material is attributed to the period between the 3rd century BCE and the 1st century CE.

On drawn beadmaking at Papanaidupet, India.

Discusses the stone and glass beads recovered from Anuradhapura, Sri Lanka’s first capital. The beads date from around the 4th century AD to the 11th century.

Finds from the 6th-8th-centuries levels of the citadel in southern Uzbekistan include a single spherical etched carnelian bead and a small number of other beads (p. 114). In Japanese.

The Society and Economy During Early Iron Age and Early Historic Period in Deccan with Special Reference to Beads (1000 BC to 500 AD). Ph.D. dissertation. Deccan College Post Graduate and Research Institute, Pune, India.

Thakuria, T. and R.K. Mohanty  
Discusses the bead forms encountered and the production process. The material likely dates to the Early Iron Age Megalithic period.

Tissot, Francine  
A succinct yet rare attempt to link jewelry depicted in detail on Gandharan sculpture with excavated pieces, notably from contemporary sites in Uzbekistan and the Russian steppe. Pakistan, Afghanistan.

Tiwari, Jalaj Kumar  
A variety of zoomorphic beads ranging from the Northern Black Polished Ware culture to the early historic period have been recovered from sites in the vicinity of Vaishali in northeastern India.

Uesugi, Akinori, Manmohan Kumar, and Vivek Dangi  
https://www.academia.edu/37229869/.  
Presents a thorough analysis of the stone beads recovered from two Urban Indus sites in northern India, including a reconstruction of the bead production process.

Uesugi, Akinori, Izumi Nakai, Manmohan Kumar, Kyoko Yamahana, Yoshinari Abe, Junko Shirataki, Kanae Toyama, and Vivek Dangi  
While no clear-cut variation was observed, the results of morphological and compositional studies reveal homogenous features in the styles and production of faience objects (including beads of several forms) that characterize the Urban and Post Urban Indus periods in the Ghaggar Valley of India.
Uesugi, Akinori and Wannaporn Kay Rienjang
Silicone casts made of the perforations of stone beads recovered from an early 1st millennium site in northern Pakistan provide information concerning the various drilling techniques used.

Urazova, Dinara
Illustrates some of the stone beads found with the burial of a Sarmatian woman.

Usmanova, Emma R.
https://www.academia.edu/43092455/.
Reconstructs Andronov garments of the 2nd millennium BC which incorporate beads and pendants in their fabric. Also discusses ornaments with these components. In Kazakh, Russian, and English.

Usmanova, E.R. and V.K. Merz
Discusses ear ornaments incorporating grooved gold beads of 1.5 turns discovered in Andronov burials of the Ural-Kazakh steppe zone, Kazakhstan. In Russian with English abstract.

Vaidya, Shantanu and R.K. Mohanty
Discusses the evidence for a small-scale beadmaking industry at a megalithic site in central India that utilized chalcedony, jasper, agate and carnelian as a raw material.

Vanzetti, A. and M. Vidale
Stone beadmaking at Neolithic Mehrgarh, Pakistan.

**Vidale, Masimo**


Reports on the stone beads and their production techniques.


Reconstructs steatite beadmaking at the ancient Harappan site of Mohenjo Daro, Pakistan.


Carnelian beadmaking may have been segregated to control the production of status items. Pakistan.


A survey of coral beads in the Subcontinent.

**Vidale, M., J.M. Kenoyer, and K.K. Bhan**


On contemporary stone (agate) beadmaking at Khambhat (Cambay), India.

**Vidale, Massimo, Maurizio Mariottini, Giancarlo Sidoti, and Muhammad Zahir**


Deals with the archaeological material recovered from a Chalcolithic craft center. The emphasis is on lapis lazuli and chert drill heads.
“Indus technical virtuosity” refers to the distinctive Indus characteristic of inventing and diffusing complex techniques for the production of small, elegant objects such as beads. It is argued that such virtuosity had important implications for the social patterning of Indus period and later communities. The relationship between societal patterning and the types of objects valued over time, particularly rare exotic materials vs. technologically complex materials, is also examined, both for the Indus case and as a general cross-cultural model.

Vidale, Massimo, Johannes Pignatti, Leonardo Langella, and Giuseppe Guida
Investigates the exploitation of Indo-Pacific corals vs. Mediterranean species in the production of beads.

Vikrama, Bhuvan
Concentrates on the beads recovered from the Painted Grey Ware levels at a site in northern India.

Vinogradova, N.M. and G. Lombardo
A detailed synthesis, with C14 dated chronology, of this region of ancient Bactria during the late 2nd millennium BC. Among the finds from cemeteries are beads of lapis lazuli, carnelian, and paste.

Wagner, Mayke and Hermann Parzinger
Late Bronze Age site in Chinese Central Asia: bone, stone, and turquoise beads.
The most notable find was a small Harappan etched carnelian bead. Three other beads were made of carnelian, alabaster, and lapis lazuli.

Yablonsky, Leonid T.  
Beads and other adornments of a variety of materials are included in the discussion. Kazakhstan, Uzbekistan, and Turkmenistan.

Yam, Sheung Cheong  
2007 The Mystery of Dzi, Book 1 and Book 2.

Zhimo, Avitoli G.  
Explores the similarities of heirlooming beads among the Kachin, Sumi Naga, and Zemi Naga.