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/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.

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 B.C. cemetery in Southern Uzbekistan; beads of other materials are reported from Andronovo contexts.

Ayyar, Sulochna
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 B.C.

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.


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.

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).

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

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.

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 B.C.) 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.*

**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 B.C. and A.D. 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.

**Chudjakov, Jurij S.**

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 A.D. 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.
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.

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 and Vasant Shinde
Beads of various shell species were found in Early Historic (1st century B.C.E. to 1st century C.E.) and Harappan (3300 to 2000 B.C.E.) contexts.

Dovgalyuk, N. et al.
Kazakhstan. In Russian.

Durani, F.A, I. Ali, and G. Erdosy
Describes the material from this important Early Harappan urban site in the Gomal Plain, northwestern Pakistan.

Durante, Silvio
Shell beads from sites in Iran and Pakistan: the species used, manufacturing methods, and trade routes.

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.


On Indo-Pacific beads and their manufacture.


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


Summary of beadmaking of various materials in India.


Southeastern India.


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


Important Sri Lankan emporium site of the 1st millennium A.D. 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.

1996  Change as Constant. Ornament 20(2):80-81. 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.


2000-2001  The Stone Bead Industry of Southern India. Beads: Journal of the Society of Bead Researchers 12-13:49-62. 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.


Gadzhiev, Magomed G. et al. 1997  The 1995 Daghestan-American Velikenct Expedition. Eurasia Antiqua 3:181-222. 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.

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).

Gupta, S.P., Tejas Garge, Sonali Gupta, and Anuja Geetali
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.
Occupied during the Chalcolithic and Early Historic periods, the ancient site of Gilund in the Mewar region of Rajasthan, India, yielded beads of terra cotta, shell, carnelian, and other semi-precious stones. Two bead polishers were also encountered.

Hannibal-Deraniyagala, Anne S.
Presents a summary of early glassmaking with descriptions of over 5,000 glass and 47 beads of rock crystal, amethyst, garnet, agate, and carnelian from Tissamaharama and the Akurugoda citadel site of an early historic Buddhist kingdom in southern Sri Lanka. Some beads made of shell and horn were also found.


Haque, Enamul (ed.)
Several articles mention beads of semi-precious stone and glass from this site in Bangladesh occupied from ca. 200 B.C. onward.

Heit, Ilia
The archaeological remains indicate production of a distinct type of disc bead from one shell species of the genus Didacna. Moreover, they 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 Circumcaspi an region.

**Herrmann, Georgina, K. Kurbansakhatov, and St John Simpson et al.**
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 B.C. (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.

**Jayakumar, P.**
South India.

**Jyotsna, Maurya**

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.

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.

**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.

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.

Glassmaking and bead production were small-scale industries in India, originating some time in the 1st millennium B.C. 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.

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.

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.

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 B.C. to the 4th century A.D.

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.

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 B.C.

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

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 B.C.E.-400 C.E.). 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 B.C.E.-400 C.E.) in South India was stone beadmaking. Numerous spindle whorls represent textile production.

Discusses the use, trade, and production of beads of various materials (stone, bone, glass, metal, and terra cotta) at a site in South India.

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

2016 Heterodoxy, Orthodoxy and Communities of Practice: Stone Bead and Ornament Production in Early Historic South India (c. 400 BCE–400 CE). Archaeological Research in Asia 6:30-50, doi:10.1016/j.ara.2016.03.001.
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 B.C.) 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.

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.

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.


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


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

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


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


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.

Ludvik, Geoffrey


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.
Ma hroof, 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.

Matarasso, P. and V. Roux
A techno-economic system for carnelian beads in India.

Matveyeva, N.P.
A western Siberian site of the Sargat Culture, 1st-3rd centuries A.D., 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.”

Meadow, Richard H.
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
Agate, glass, and etched carnelian beads figure in the cultural attribution of a late-1st-millennium tomb (p. 218, fig. 14.5). Mentions stone, bone, and carnelian beads from a site in the Eastern Pamirs (p. 223) and a carnelian bead from a site in the northern foothills of the Tian Shan (p. 227, fig. 14.18).

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

Mohanty, R.K.

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

Analysis of a copper bead from a Neolithic burial (6th millennium B.C.) at Mehrgarh allowed the recovery of several threads, preserved by mineralization. They were characterized according to a 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.

Parmar, Narendra

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.

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.


The beads date to the period from the 3rd century B.C. to the 3rd century A.D. 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.

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.

Rossi-Osmida, Gabriele (ed.)

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

Roux, Valentin (ed.)

A thorough study of the carnelian bead industry of Cambay, India, past and present. Includes sections on Harappan beads, the exportation of beads to Mesopotamia, and technology replication. In French with an English introduction.

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

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

Roux, V. and P. Matarasso

Presents ethno-archaeological data on Harappan carnelian beads; Pakistan, India.

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.

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

1986  
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 A.D. (fig. 169).

1990  
The Golden Hoard of Bactria. *National Geographic* 177(3):50-75 (March).
Graves at the Graeco-Bactrian site of Tillya Tepe, Afghanistan, yielded sumptuous gold jewelry including faceted and granulated gold beads.

1993  
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.**
1987  
Stone, bone, shell, coral, and glass paste beads of various shapes are illustrated; 4th-5th centuries A.D. In Tadjikstan. In Russian with brief English summary.

**Sharma, D.V., V.N. Prabhakar, R. Tewari, and R.K. Srivastava**
1999-2000  
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 B.C.) and Kushan (from A.D. 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, et al.**
2008  
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**
1996  
A 4th-century-B.C. 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).

**Simpson, St John**
2004  
Glass and Small Finds from Sasanian Contexts at the Ancient City-Site of Merv. In *Central Asia from the Achaemenids to the Timurids: Archaeology, History, Ethnology, Culture. Materials of an International Scientific Conference Dedicated to the Centenary of Aleksandr Markovich*
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 B.C. 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

Somadeva, Raj
Beads of clay, stone, bone, shell, metal, and glass were recovered from several sites occupied during the 1st millennium B.C.E and the 1st millennium C.E.

Stern, E. Marianne
On drawn beadmaking at Papanaidupet, India.

Tanabe, K. et al.
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.

Thakuria, Tilok
2007 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

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.

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

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

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

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

Vidale, M., J.M. Kenoyer, and K.K. Bhan
On contemporary stone (agate) beadmaking at Kambhat (Cambay), India.

Vidale, M. and Heather M.-L. Miller
“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.

**Vinogradova, N.M. and G. Lombardo**
A detailed synthesis, with C14 dated chronology, of this region of ancient Bactria during the late 2nd millennium B.C. 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.

**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.*