

**The Cover:** Chinese glass beads, commonly called Peking and/or Canton beads, c. 1850-1940. Cover photograph by Phil Shima.

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## CHINESE GLASS BEADS AND ORNAMENTS\* Robert K. Liu, Ph.D.

As used in this article, Chinese glass beads and ornaments refers to so-called Peking and/or Canton glass products which were primarily made or exported in the period 1850 to 1940<sup>1</sup>. Information on this arbitrary category of beads is virtually nonexistent, with one recent exception<sup>1</sup>. In order to gain a fuller perspective, it is necessary to briefly review the history of glass beads and ornaments in China.

Glassmaking was developed in China by the fifth century B.C.2; glass beads and ornaments dating from the Han dynasty (c. 206 B.C.-220 A.D.) have been positively identified as Chinese in origin3. Not only were these beads and plaques stylistically different (the eyes or eyelets were placed asymmetrically to give a revolving effect), or often distinctly Chinese in subject (such as ceremonial discs called pi) but upon chemical analysis, were found to be of different composition. The beads "contained barium, an element not present in any imported material, giving China a positive position as an independent inventor of glass before its introduction from the Roman Empire, and that lead occurred as a significant factor in the composition.... The glass of the Far East was basically of a leaded composition, whereas its Western counterpart had a soda-lime formula."4 Not until the T'ang dynasty (618-907 A.D.) do Chinese glass beads change to the latter type of composition.5

The Western literature next mentions Chinese making glass in an as of yet unidentified city during the twelfth century<sup>6</sup>. Some 400 years later, in 1680, a Dutch Jesuit established for the Emperor K'ang Hsi a glass factory in the palace at Peking<sup>1,6</sup>. Earlier in that same century, other Western missionaries also reported glass being manufactured in China. By the 18th century, other Jesuits wrote of the glass industries of Po-Shan in Shantung province, and of Peking, to which materials from the former city were transported.7 This very fragmentary record is supplemented by inference from the detailed documentation of the history of glass in Japan.<sup>2</sup> From the Yayoi Period (ca. 250 B.C.-ca. 250 A.D.) to at least the Edo Period (1603-1868), there appears to have been trade between China and Japan in glass products, or sharing of technology via Chinese glassworking artisans residing in the Island Kingdom.<sup>2</sup> During the Muromachi and Momoyama Periods (1334-1603) when glassworking, especially beadmaking, was on the decline in Japan, Blair<sup>2</sup> believes Chinese and possibly Venetian beads were imported. With such a close relationship between these two countries, it is not surprising that many Japanese beads are similar in appearance and probably composition to Chinese beads. However, due to the relegation of glass as a substitute for jade and other hardstones or porcelain. Chinese often worked glass by lapidary methods. Glass was not so treated in Japan, so engraved and ground beads and pendants are one major distinction between the two countries. In addition, despite glass diffusing into Japan from China during the Han dynasty,8 no examples of such stratified Chinese eye beads are found in Japan, either as imports or copies.

For the nineteenth century, information about Chinese beads are derived from published accounts of trade, and actual specimens collected by or excavated by Westerners. Unfortunately, neither source is really reliable, since most descriptions of beads in documents about trade goods were too vague to be useful in identification of specific beads. and no examples of known origin are available for comparison. As for collected or excavated specimens, any estimate of their age would depend upon how accurately a site could be dated by other trade items, such as metal buttons or guns.9,10

Considerable controversy exists as to

whether any of the glass beads used in early Northwest or Southwest trade are actually Chinese in manufacture. Opinion is expressed by Jenkins" and Woodward" that at most, beads were imported into the U.S. from China, but not necessarily made there. Ross12 and Chu and Chu' believe otherwise. The latter authors' state firmly that "padre" and/or "pony" beads traded in the Southwest U.S. and Mexico were made in China, arriving in the New World at Acapulco, on the Pacific coast of Mexico, via Manila. In this case, and wherever actual specimens exist, it should be possible to resolve the question with some certainty, by undertaking a thorough morphological and chemical comparison of examples with known attributions.

The most acute problem with identification occurs with Chinese glass beads mentioned in early 1800 accounts (ca. 1804-1828): I do not know if any specimens exist that are attributable to that period. But based upon Chinese trade with the West at that time and the state of the Chinese glass industries, I believe it was certainly possible for beads in this early period to be Chinese in origin. However, trade with the West did not really expand until about the 1840's, so the use of 1850 as a starting date for many Chinese beads in the United States appears to be reasonable. However, Cammann<sup>13</sup>, in a treatise on Chinese toggles, states that glass was not cheap until about 1890. If this were true, then it would be doubtful if such a large volume of cheap glass beads could have been exported from China prior to then. But I believe that this author was not referring to beads, which are relatively easy to make from readily available raw materials. Chu and Chu<sup>1</sup> describe a large-scale beadmaking cottage industry "in and around Po-Shan (current day Tzupo) in the northern province of Shantung, the largest producer of glass in the nation." This was occurring in 1850, and the authors believe it may have been functioning much earlier.

The large amount of bead material dating from the 1850's to the early

1900's, now extant in the many private and museum collections needs to be studied. However, like most bead material or references, these are scattered widely, often rather inaccessibly, requiring much time and patience to ferret out. For example, I have mentioned A.H. Bray's collection, supposedly collected prior to 1887; D.H. Osakoda has sent me a photograph of Chinese beads included among the trade bead exhibit at the Indian Museum at Sutter's Fort, Sacramento, Ca.; Jenkins14 has written about and figured many Peking beads found in Alaska and the Northwest; the Museum of the American Indian, N.Y., N.Y. has a large amount of beads associated with their collection, such as those on Aleut hats-one such hat, with "padre" like or Peking glass beads, dated 1829, is figured in Feder<sup>15</sup>; Curtis<sup>16</sup> shows a Wishham or Wishram Indian girl of the Columbia River region, wearing a headdress of Chinese coins and beads, and probably large Peking beads in a necklace, ca. late 1890's or early 1900's. If we are to ever obtain some concrete data on Chinese beads of this period, someone with the interest, time, and not inconsiderable financial resources for travel must study and collate all these sources of information.

Chu and Chu<sup>1</sup> give the following account of beadmaking in Canton, in Southern China:

" ... long bamboo reeds were dipped into troughs of wet clay slip, then taken out and dried....two people would hold one reed as a third poured threads of molten glass at intervals on it. The two end people twirled the reed, making the glass form into beads. When the glass had hardened but not yet cooled, the reed was laid on a bed of dry clay. When completely cool, the beads were shaken off into water and washed."

This immediately explains why "traces of clay, air bubbles and the ever-present irregularities in the bead contour..." are identifying criteria for Chinese glass beads.<sup>1</sup> Since this was a cottage industry, with the glass "factory" supplying glass rods or pulverized glass<sup>1</sup> rods of various colors to the individual beadmaker it is easy to understand the variation of individual beads, in relatively limited number of colors.

The materials I have chosen to illustrate this article most likely date from 1850 to 1940,' although I have stated earlier (cover story) that most of it probably dates from the more recent side of this range. As in Japan and India, glass beads in China were primarily not used in jewelry, such as necklaces, but "to decorate lampshades, as lamp pulls, window-shade pulls, tiebacks for draperies, and for the corners of cardtable covers.... Available too is a wide assortment of circlets from finger rings to extra-large bracelets (found on baskets, evening and knitting bags), as well as double gourds (also used for lampshade pulls), large and small teardrops with enameled brass fittings or brass fittings decorated with Kingfisher feathers."1 Additional uses were in or as tassels, especially on lanterns, portieres, "long strands for the flappers of the 1920's," mandarin necklaces, trivets, cabachons, fringes on other pieces of jewelry, rosaries, toggles and pendants. This listing is not exhaustive, but does show the wide range of uses for Peking and/or Canton glass beads and ornaments. Since much of these glass products were exported. I am not certain how many such uses were also practised in China itself. Other items made of Chinese glass are described in Chu and Chu.1

The illustrations are arranged to show the structure and shape of some typical and less common Chinese beads (figs. 1 to 15). Melon and facetted beads, which are difficult to identify as to origin, are shown in figs. 16 to 17. Some doubtful Chinese beads are shown in figs. 18 to 20. Figs. 21 to 24 are examples of Chinese beads found in a Northwest Indian necklace, Bedoin necklace and a necklace from Africa. Contemporary Chinese glass beads are illustrated in fig. 25. Mandarin and other antique necklaces, illustrating indigenous use of beads, circlets and pendants are shown in figs. 26 to 32; other pendants and a toggle in figs. 33 and 34. Glass products used on or as jewelry, a bead fringe, a tassel and a bead trivet demonstrate other examples and uses of Chinese glass beads and ornaments (figs. 35 to 39).

\*In order to save space, there is very little overlap in the *Cover Story* and this article. So the reader should refer to both these articles, as well as the pertinent sections of *Letters to the Editor*.

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<sup>2</sup>Blair, D. 1973 A history of glass in Japan. Kodansha Internat. Ltd. and The Corning Mus. of Glass: 480p.

<sup>3</sup>Seligman, C.G. 1937 The Roman orient and the far east. Antiquity 11 (41): 5-30.

<sup>4</sup>Taylor, Z. 1974 Ancient Chinese glass. Arts of Asia 4 (6): 27-31.

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<sup>8</sup>Chen, C.L. 1968 Material culture of the Formosan aborigines. Taipei, The Taiwan Mus.: 359-366. <sup>9</sup>Woodward, A. 1967 Indian trade goods. Portland, Oregon Archaeol. Soc. 38p.

<sup>19</sup>Strong, E. 1960 Phoenix buttons. *in* Indian trade goods, A. Woodward, Oregon Archaeol. Soc. 29-30.

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<sup>11</sup>Jenkins, M.R., *Letters to the Editor*, Bead J., this issue.

<sup>12</sup>Ross, L.A., *Letters to the Editor*, Bead J., this issue.

<sup>13</sup>Cammann, S. 1962 Substance and symbol in Chinese toggles. Phila., Univ. Penna. Press: 256p.

<sup>14</sup>Jenkins, M.R. 1972 Trade Beads in Alaska. Alaska J. 2(3): 31-39.

<sup>13</sup>Feder, N. (1971) American Indian Art. N.Y., Harry N. Abrams, Inc. Publ. 445p.

<sup>16</sup>Curtis, E.S. 1972 Portrait from North American Indian Life. N.Y.C., Promontory Press: 176p.

<sup>17</sup>Erickson, J.M. 1969 The universal bead. N.Y., W.W. Norton and Co., Inc. 191p.



Fig. 1. Large spherical bead with pasted on label "Made in China." (Scale marked in mm, 5mm, 1 cm). (G.B. Fenstermaker Coll.)

Fig. 2. Cobalt blue spherical bead, showing large perforation with covering of clayslip, ground apex. Similar to some Alaskan trade beads in the last colored plate in Erikson.<sup>17</sup> (Courtesy of A.T. Williams).



Fig. 3. Strand of dark blue beads, strung with copper links, probably imported already in this condition. (G.B. Fenstermaker Coll.)



Fig. 4. Broken spherical bead showing size of perforation and encrusted clay slip. (Courtesy of G.B. Fenstermaker).

Fig. 5. Graduated white spherical beads found in old Chinese sewing basket, along with other definitely Chinese beads. The relatively small perforation and the white glass are atypical of Chinese beads. (Courtesy of CDB).

![](_page_5_Picture_4.jpeg)

Fig. 6. Transparent and translucent elliptical beads, strung on bamboo slivers for shipping. The middle row of beads show clearly the typical air bubbles and clay inclusions. (Courtesy of F.D. Lessard).

![](_page_6_Figure_1.jpeg)

Fig. 7. Two nested strands of old Chinese beads, illustrating the wide variation in shape and size of spherical and ellipsoid beads. Some beads of the inner strand have impressed crumb and crude polychrome decoration. (Courtesy of A.T. Williams).

Fig. 8. Four beads found in old Chinese basket, showing telltale signs of mandrel-wound construction. The shape of such early beads are so imprecise as to defy classification by shape (Courtesy of CDB).

![](_page_6_Picture_4.jpeg)

Fig. 9. Translucent and transparent blue "pancake" beads, revealing by the pigment streaks and air bubbles how the glass was placed into the mold. (G.B. Fenstermaker Coll.)

![](_page_6_Picture_6.jpeg)

Fig. 10. Relatively rare facetted overlay beads, of blue or green glass over opaque white ground. Precise facetting. (G.B. Fenstermaker Coll.)

![](_page_7_Picture_1.jpeg)

Fig. 11. Three types of crudely formed beads, two of which may simulate berries; the center bead is distinguished by a slit-like perforation, as discussed by D.H. Osakoda in *Letters to the Editor*, Bead J. 1(2):3. None of these are molded. (Courtesy of M. Berchin, G.B. Fenstermaker and D.H. Osakoda).

![](_page_7_Picture_3.jpeg)

Fig. 12. Part of an interesting strand loaned by D.H. Osakoda showing the variety of Chinese beads in her collection. The three speckled beads, actually impressed crumb beads, are fairly similar to the two Japanese examples of so decorated beads, in Fig. 13. One bead away from the smallest crumb bead is an example of aventurine glass. Copper filings were used to simulate the sparkle of aventurine.<sup>1</sup> Chu and Chu<sup>1</sup> compare Chinese versus Venetian techniques of "goldstone" or aventurine beads. Aventurine itself was not used in the manufacture of these beads. Similar Japanese aventurine glass bead can be found in Pl. 163 of Blair.<sup>2</sup> (D.H. Osakoda Coll.)

![](_page_7_Picture_5.jpeg)

Fig. 13. A strand of old glass beads from Japan, primarily in coral shades. The darkest beads are jade green. The similarity of Chinese and Japanese crumb beads illustrates how easy it is to confuse beads of these two countries. Some contemporary Japanese amethyst colored spherical beads given me by L. Wataghani are even more difficult to differentiate. (J. Concoff Coll.)

Fig. 14. Left hand specimen is an impressed crumb bead interspersed with large flakes of copper? (dark spots). Similar to Tombodama in Blair's' Pl. 163, described as "suggesting millefiore technique," but really another impressed crumb bead, from the Edo period. Right hand specimen a dark brown "balustrade" bead, large end of which is ground. Use of such beads is demonstrated in Fig. 27. Both purchased 1921-22 in Chinese art goods store, Seattle, Wash. (Courtesy of E.J. Harris)

![](_page_8_Picture_2.jpeg)

![](_page_8_Picture_3.jpeg)

Fig. 15. More samples from the D.H. Osakoda Collection, illustrating from the right, a Czech melon bead, a very unusual transparent rose colored bead with yellow polychrome and millefiore decoration, with another aventurine bead, underlaid by impressed crumb decoration. Another specimen of the millefiore bead was strung on fine braid, with elaborate, repeated knots. (D.H. Osakoda Coll.)

Fig. 16. Chu and Chu' state that Chinese facetted beads "are of rather poor quality-the facets are molded rather than cut." The oval amber colored facetted beads on the bottom were purchased 1973 in a "second-hand" store in the P.R.C. by M.M. Liu; the middle strand of clear glass beads were obtained in a similar manner in 1972 by D.K. Liu. Both have finely ground facets. The upper specimens are less carefully ground, have tapered perforations and were purchased in this country as Czech beads. It is probable that the other two strands were also Czech, imported into China before WWII. Tapered perforations in facetted beads would hold the mandrel in place during facetting (R.K. Liu Coll.; Courtesy of G.B. Fenstermaker).

![](_page_8_Picture_6.jpeg)

![](_page_8_Picture_7.jpeg)

Fig. 17. Four strands of melon beads, two of which are probably Czech (bottom, next to top strand), two Chinese. Size of perforations, evenness and shape of the lobes, presence of air bubbles are differentiating criteria.<sup>1</sup> (G.B. Fenstermaker Coll.)

![](_page_9_Picture_1.jpeg)

Fig. 18. Left hand specimens supposed to be "Canton" beads, with very large perforations and thin walls, purchased in the U.S. These appear very similar to specimens figured in Jenkins,<sup>14</sup> Fig. 5, which were described as "either Bohemian or Czechoslovakian manufacture shows types common to the late 1800's and early 1900's." I also have beads of this type from an antique Bedoin necklace (Fig. 23). All these specimens show colors and manufacture that suggest a Chinese origin. Right hand specimens are same as last two strands on cover, but at a higher magnification. Probably Chinese or Japanese. (Courtesy of G.B. Fenstermaker)

![](_page_9_Picture_3.jpeg)

Fig. 19. A mixed lot of beads supposed to be Chinese. Some, like bead in upper left hand corner suggest Hebron glass. The truncated barrel beads, both plain and with impressed crumbs, have small perforations, almost no air bubbles, and no clay inclusions. These are a type I have not encountered, and are probably not Chinese either. (G.B. Fenstermaker Coll.)

![](_page_10_Picture_1.jpeg)

Fig. 20. A box of Chinese beads, including specimens with overlay facets and engraving. The two large specimens with painted figures are porcelain scroll weights, not beads. Chu and Chu<sup>1</sup> describe similar Japanese specimens; I have some similar contemporary Japanese scroll weights. A specimen without figures, with all the glaze worn away, was bought by Dr. H.M. Cole in Ghana, where it was being worn as a bead, and highly prized. (G.B. Fenstermaker Coll.)

![](_page_10_Picture_3.jpeg)

stermaker Coll.)

![](_page_11_Picture_1.jpeg)

Fig. 22. An old Bedoin necklace, with pierced cloves, opaque yellow "Peking" glass beads and Venetian "corralles" beads. Among Berbers or Bedoins, cloves held aphrodisiac properties. (R.K. Liu Coll.)

![](_page_11_Picture_3.jpeg)

Fig. 23. A substrand from the above Bedoin necklace, containing molded Czech? beads, "Canton" and/or "Peking" beads, "padre" like beads and mother-of-pearl beads. It would be important to resolve the identity of these beads, since such information can give us some idea of the trade patterns (R.K. Liu Coll.)

![](_page_12_Picture_1.jpeg)

Fig. 24. Beads sorted out from an African necklace containing Dutch cobalt blue and clear glass beads. Strongly suggestive of Chinese beads. (G.B. Fenstermaker Coll.)

Fig. 25. Contemporary Chinese glass beads from the P.R.C., carnelian colored, relatively free of air bubbles. (Courtesy of Shashi Impts.).

Fig. 26. Antique mandarin court necklace, showing arrangement of characteristic asymmetrical dangles, counterweight to be worn at the back of the neck. Purchased in the P.R.C., 1972, by D.K. Liu. Faint line in center is 20 cm long. (R.K. Liu Coll.)

![](_page_12_Picture_5.jpeg)

![](_page_12_Figure_6.jpeg)

![](_page_13_Picture_1.jpeg)

Fig. 27. Detail of mandarin court necklace, showing metal findings connecting the counterweight ribbon to body of necklace, engraved or ground spherical bead perforated in two axes, and matching "balustrade" bead. (R.K. Liu Coll.)

Fig. 28. The counterweight and dangle at the end of the ribbon. Note the wooden splint in the slit perforation, the engraving and drilling of counterweight and dangle by lapidary techniques. (R.K. Liu Coll.)

![](_page_13_Picture_4.jpeg)

![](_page_13_Picture_5.jpeg)

Fig. 29. Detail showing engraved bead perforated only along one axis and carved beads, probably from peach or similar pit. Note that engraved design is achieved by grinding short grooves at right angles to each other. As pointed out by Chu and Chu,' these "carved" glass beads are only made in "an intense sapphire and/or cobalt blue." (R.K. Liu Coll.)

![](_page_14_Picture_1.jpeg)

![](_page_14_Picture_2.jpeg)

Fig. 30. Antique Chinese necklace of yellow glass beads, both spherical and elliptical, glass circlets, tassels and an "inside painted" pendant. Painting technique for this type of glass has been described.<sup>1</sup> (R.K. Liu Coll.)

Fig. 31. Closeup of transparent "inside painted" pendant. The design on the reverse side shows birds. The bead immediately above the pendant shows well the winding or coiling technique, as delineated by the specks of dark clay inclusions. (R.K. Liu Coll.)

![](_page_14_Picture_5.jpeg)

Fig. 32. Closeup to show arrangement and knotting of various beads and circlets in this antique necklace (R.K. Liu Coll.)

![](_page_15_Picture_1.jpeg)

![](_page_15_Picture_2.jpeg)

Fig. 33. Necklace of oval tabular beads, molded and engraved pendant, purchased in 1972-73 from importing firm. The engraving is well-executed. (R.K. Liu Coll.)

Fig. 34. Antique Chinese toggle of amber-colored glass, showing a gourd. Made by molding, grinding and drilling. Note that the pigment is only in a thin sheet, as shown by the lateral view. Cammann' states that such glass was a "common substitute for amber in North China..." Silver loop not original, added by author. Purchased 1972 in P.R.C. by D.K. Liu. (R.K. Liu Coll.)

![](_page_15_Picture_5.jpeg)

Fig. 35. Beautifully made *pi* and a cabachon to simulate spinach green jade. The label gives the age as 40 years. The wax seals are affixed to antiques now sold in the P.R.C. All glass rings to simulate jade were also made in China. Purchased 1972 by D.K. Liu (R.K. Liu Coll.)

![](_page_16_Picture_1.jpeg)