60A.
A Pale-Green Roman Glass Cup　　大秦淡青璃玻深杯

Height: 10.9 cm. (4 ¼ in.)
Diameter: 7.7 cm. (3 in.)
Roman Empire (Syrian? Mesopotamian?)
1st-5th century A.D.

The elegantly shaped cup is of deep form rising from a solid foot to a thickened flared lip. The gracious profile is enhanced by a single thin 'bow string' wrapped around the neck, appearing like treacle squeezed from a tube. The translucent glass is a pale, icy, sea-foam green with rainbow highlights due to opalescence. The foot reveals a more intense aquamarine color when held to the light. The surface has some areas of dense encrustations.

60B.
A Pale-Green Roman Glass Bottle　　大秦淡青璃玻高瓶

Height: 39.0 cm. (15 3/8 in.)
Diameter: 7.2 cm. (2 7/8 in.)
Roman Empire (Syrian? Mesopotamian?)
1st-5th century A.D.

The bottle is a long slender tubular shape rising from a convex base to slightly rounded shoulders and terminating in a short constricted neck and slightly everted mouth. The beaker, aside from its shape, is precisely the same as the cup: the material characteristics—the color and even encrustations are similar and the thicker base also exhibits a stronger color.

The present glass cup is of Roman manufacture, identified as such for us by a specialist in a field not our own.1 The shape is apparently a well-known type but at the same time the cup is deemed a quite attractive example of its kind. The beaker, which is similar in every respect, including the surface encrustations, and acquired from the same source, must likewise be Roman, that is, produced within the Roman Empire. The most important sources for glass were Egypt, where glass is widely believed to have originated some four millennia ago, and in the empire's eastward extension along the Mediterranean and further east into Mesopotamia. A variety of beakers, tall-necked bottles and vases were produced in the lands of the eastern Roman Empire—and provide a family for the present beaker.

The history of glass in China was a long and sporadic one. Glass articles were imported from the West as early as the 5th century B.C, inspiring local imitations by the late Zhou period. Multicolored beads inspired by western imports represent what was a limited glass production in China during the late Eastern Zhou dynasty (fig. 1).

A native Chinese tradition was established during the Western Han, prompted essentially by a desire to imitate jade, and was further supported by China's own bronze tradition—the glass at that time

was cast from molds. Well-established jade forms were the backbone of the production: *bi* discs, sword accouterment, vessels, belthooks, glass suits in imitation of the famed jade suits, replicas of jade plugs used to block the orifices of a jewelry and simple vessels (figs. 2-4). Much of the glass from this period has not been recovered from tombs of the super rich but rather from somewhat more modest burials and particularly within the lands of the kingdom of Chu; the mold-made glass items were much easier to produce, less costly and less wasteful of materials than working with incalcitrant jade.1

Excavated Western Han tombs, the majority dating to the 2nd century B.C., have yielded numerous glass objects as described above but also, interestingly, accouterment in cobalt-blue glass. Blue-glass earrings have been discovered in tombs in at least ten provinces, represented here by a pair in the Palace Museum in Beijing (fig. 5). A number of these have been strung together to form a necklace, now in the Kaikodo collection (fig. 6). The primary type of glass during the Western Han period, however, is milky, essentially opaque, usually off-white in color and with accumulated small bubbles trapped in the matrix. This early glass is described as a lead/barium glass in contrast to the soda/lime/silica glasses of the West.

It has been pointed out that it was intentional to produce a product that was semi-translucent, milky, and white to greenish in color in order to suggest the appearance of jade. Yet the problem with Western Han glass was that by imitating jade the major characteristics of glass that made it so special—its almost magical ability to transmit light through its fragile walls, its lightness, thinness, and often intriguing colors, was not part of the equation, not characteristics shared by the made-in-China glass products.

During the Eastern Han, with an influx of Central Asians in the north stimulating trade, imported glass that acted like glass was expected to act was a most successful commodity. This might well explain the collapse of Chinese glass production during the Eastern Han, when imported glass became the most highly desired and coveted of glass wares.

The Chinese fascination with glass during the Six Dynasties period is captured in the literature of the time and although glass continued to be imported, homeland production resumed but with a new technique at hand. Blown glass required a tube of some sort to blow air into molten glass to form a bubble, the first step in creating whatever form the glassmaker desired to create. Glass recovered from Chinese archaeological sites of this period include both imported and domestic products and very often it is not easy to decide which is which, although it is believed that the two illustrated here are from the West (figs. 7-8). There is no doubt about the Western provenance of the bottle where the raised design was produced by grinding away the background. Logically, if the form is Chinese, or a form found primarily in China, the piece is likely Chinese; if found throughout the western world or associated with shapes and decorative technique current there, then the piece is likely foreign

This difficulty of identification continues during the Tang and Song periods when glass vessels and objects from those eras have been recovered from tombs, and, of special interest, from Buddhist crypts or reliquaries associated with pagodas erected on temple grounds, many of which have been excavated in recent times. A glass cup and stand that were included in the inventory dedicated in the reliquary at the Famen pagoda in Xi'an, Shaanxi province, are, if based on shape, inarguably Chinese (fig. 9). Other finds are not so easily understood. We are sure, however, that because of its properties associated with light and hence spirituality, glass was considered a perfect material for such religious dedications.

In Chinese paintings of the Song and Yuan period, vases holding stalks of bamboo placed in front of the "Water Moon Guanyin" were depicted as transparent, and presumably glass (figs. 10-12). However, it would not be until many centuries later, under the Qing dynasty from the 17th to 19th centuries, that Chinese craftsmen would succeed in creating glass of such variety and quality that it would become a major player on the international stage. We are gratified to be the keepers of at least a small part of this intriguing and unique history, one that contributed a rainbow of light and color to the "River of Stars."

1. Our gratitude to Richard Keresey.

2. For this and a most informative study of Han glass see Cecilia Braghin, "Polychrome and Monochrome Glass of the Warring States and Han Periods," Cecilia Braghin, ed., *Orientalia Venetiana* XIV, Florence, 2002, pp. 3-43. Equally valuable for ideas here is An Jiayao's study of imported and domestic Chinese glass during the 3rd to 6th centuries, "Glass Vessels and Ornaments of the Wei, Jin and Northern and Southern Dynasties

Periods," Cecilia Braghin, ed., *Orientalia Venetiana* XIV, Florence, 2002, pp. 45-70, translated by Cecilia Braghin). Also see An Jiayao in James C.Y. Watt, *et.al.*, *China: Dawn of a Golden Age, 200-750 AD*, Metropolitan Museum of Art, New York & New Haven & London, 2004, pp. 57-65; 155-158. An enlightening essay, contributing to our understanding here, by Shen Hsueh-man, addresses reliquary finds from Tang and Northern Song periods in "Luxury or Necessity: Glassware in SarĪra Relic Pagodas of the Tang and Northern Song Periods," in Cecilia Braghin, ed., *Orientalia Venetiana* XIV, Florence, 2002, pp. 71-110.

Fig. 1: Glass beads, Eastern Zhou dynasty, 5th 3rd century B.C., excavated from a Warring States period tomb in Hubei province, Hubei Provincial Museum, after *Zhongguo meishu quanji: Gongyi meishubian*, vol. 10, Beijing, 1987, pl. 202, p. 107.

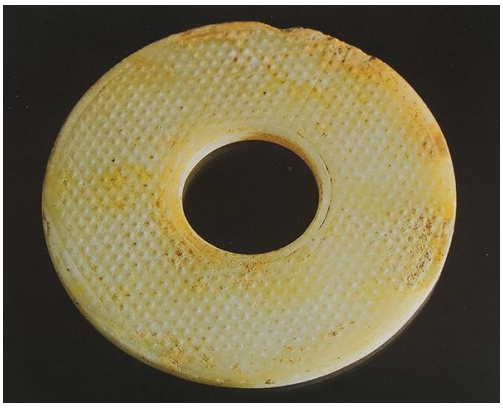

Fig. 2: Glass *bi* disk, Western Han dynasty, 2nd-1st century B.C., Guangzhou City Museum. after *Zhongguo meishu quanji: Gongyi meishubian*, vol. 10, Beijing, 1987, pl. 213, p. 112.

Fig. 3: Glass dagger, Western Han dynasty, 2nd-1st century B.C., excavated from a tomb in Changsha, Hunan province, after Chen Jianming, ed., *Tombs at Mawangdui: Art and Life of the Changsha Kingdom: Third century BCE to First Century CE,* Changsha, 2008, pl. 68, p. 196.

Fig. 4: Glass earred cup, Western Han dynasty, 2nd-1st century B.C., excavated from the tomb of Liu Sheng and his consort datable to 113B.C., Manchengxian, Hebei province, after *Zhongguo meishu quanji: Gongyi meishubian*, vol. 10, Beijing, 1987, pl. 212, p. 111.

Fig. 5: Cobalt-blue glass earrings, Western Han dynasty, 2nd-1st century B.C. Palace Museum, Beijing, after *Zhongguo meishu quanji: Gongyi meishubian*, vol. 10, Beijing, 1987, pl. 216, p. 115.

Fig. 6: Cobalt-blue glass necklace, Western Han dynasty, 2nd-1st century B.C., Kaikodo, New York.

Fig. 7: Light-green glass bowl, early 5th century A.D., Roman, excavated from a tomb in Liaoning datable to 425, Liaoning Provincial Museum, after James C.Y. Watt, *et.al.*, *China: Dawn of a Golden Age, 200-750 AD*, Metropolitan Museum of Art, New York, New Haven & London, 2004, pl. 42, p. 132.

Fig. 8: Glass bottle with surface décor, 6th century A.D., Roman, excavated from a 6th-century Sui dynasty tomb in Xi'an, Shaanxi province, after James C.Y. Watt, *et.al.*, *China: Dawn of a Golden Age, 200-750 AD*, Metropolitan Museum of Art, New York, New Haven & London, 2004, pl. 219, p. 324.

Fig. 9: Glass cup and stand, Tang dynasty, 8th century A.D., from the reliquary at the Famen temple, Xi'an, Shaanxi province, after, *Famensi*, Xi'an, 1990, p. 151.

Fig. 10: Muqi, "Watermoon Guanyin," ink and color on silk, 13th century A.D., Daitoku-ji Nara, Japan, after Toda Teisuke, compiler, *Suiboku Bijutsu Takei*, vol. III (Muqi; Liang Kai), Tokyo, 1973, pl. 1, p. 13.

Fig. 11: Detail of fig. 10.

Fig. 12: Muqi, attributed, "Watermoon Guanyin," ink on silk, 13th century A.D., after Toda Teisuke, compiler, *Suiboku Bijutsu Takei*, vol. III (Muqi; Liang Kai), Tokyo, 1973, pl. 63, p. 104. (detail).