47. Left: Bronze bell for use in Buddhist temples, with cast decoration of lotus flowers, flying heavenly beings and a beautifully modelled dragon next to the sounding tube at the top. Late Koryo period, 13th–14th century AD. Ht: 45 cm.

with 144 *kun* of gold.[63] Koryo bronzes were either cast or beaten. Cast bronzes were thicker and heavier and often decorated with exquisite inlaid silver and gold. Beaten bronzes were thinner and lighter and almost always plain.[64]

Buddhist metalware

The most important metal objects made for Buddhist use were bronze temple bells. The practice of bell casting was a burden on the people because they had to donate used bronzeware for casting new bells. There are about seventy extant Koryo bronze bells, of which sixteen are dated. In general Koryo bells are smaller than Silla ones. Many Koryo bronze bells are now in Japan, the earliest dating to 963. Of those left in Korea, one example, 1.7 m (5.5 ft) high, dated to 1010 and now in the National Museum of Korea follows the Silla model, in contrast to a smaller bell dated 1222 from Naeso temple in southwest Korea, which has new Koryo features. It is smaller (103 cm or 40 in high), and the outer edge of the crown has a band of lotus petals that project obliquely out of the upper ornamental scroll. Other Koryo features are the replacement of flying devas with a trinity under a flying canopy and the sunflower-like rendering of the lotus medallion striking point. The cylindrical tube-dragon complex on the crown of the bell has four new spherical ornaments on the upper edge. These features became typical of Koryo bells.[65] A particularly fine example of a late Koryo bell is illustrated in fig. 47. Small handbells and vajra bells were also made in the Koryo, the latter influenced by Mongol Lamaist Buddhism. A gilt-bronze cast Koryo handbell is preserved in Songgwang temple in southwest Korea.

48A. Above: Incense-burner base of cast bronze, inlaid with silver. The inscription in Chinese characters incised around the base indicates that this was part of a royal incense-burner produced for King Kongmin in AD 1358 to make a pious offering at the Sojae temple. Ht: 21.3 cm.

Bronze incense-burners were an integral part of Buddhist ritual. Although the quality of bronze bells declined in the Koryo by comparison with the Silla, these incense-burners show that Koryo metalworkers could produce new creations of exquisite beauty. Seven dated examples and one undated one exist of silver inlaid Koryo incense-burners in the shape of a pedestal-cup. The British Museum is fortunate to have one undated incense-burner and one dated incense-burner base, both inlaid in silver (fig. 48A). The technique of silver inlay was inherited from the Silla and greatly influenced decoration on celadons and lacquer of the Koryo. Thin silver thread and wider, flat silver strips are both used. The effect of the silver patterns on the dark patinated bronze background is very

48B. Above: Detail of the incense-burner base of cast bronze, inlaid with silver, 1358.

beautiful (fig. 48B). The use of siddham-seed characters on some of these bronze vessels shows Mongol influence.

Another important item for use in Buddhist temples was the circular cast bronze gong, for summoning monks to services. There are sixteen known dated Koryo gongs, ranging from 1073 to 1327. They are usually decorated with a central lotus flower to mark the striking point and concentric rings of stylized leaf scrolls or fungus.

Vases and ewers of beaten bronze for use in temples are paralleled in shape by celadon ones. The *kundika* water-sprinkler (fig. 49) was a Buddhist shape originating in India which travelled with Buddhism through China to reach Korea. Chinese Tang dynasty kundikas are difficult to differentiate from Koryo ones, but one of the characteristic features of Koryo metalwork is faceting, which can often be seen on the spouts of Koryo kundikas. Cast examples, such as one in the National Museum of Korea, are also decorated with inlaid silver, portraying a river scene, using motifs of willows, ducks, geese and other such images, common to celadon decoration.

49. Left: Pair of spouted water-sprinklers (*kundika* or *chongbyong*) for purifying the ground during Buddhist ceremonies. The shape originated in India and was produced in bronze and celadon in the Koryo. Left: Bronze kundika, 11th–12th century AD. Ht: 29.5 cm. Right: Stoneware kundika with inlaid stylized chrysanthemum roundels under a celadon glaze, late 12th century AD. Ht: 44.5 cm.

Miniature pagodas were also made for Buddhist worship, copying wooden structures in reduced scale. The details are meticulously reproduced and often provide valuable evidence of the appearance of now-lost Koryo wooden temple buildings.[66] Sarira (reliquary cases) dating from the Koryo have been discovered, although they are not as numerous or as beautiful as Silla examples. One example, dated to 1390, was discovered in the Diamond Mountains, an area where many Buddhist implements are known to have been made and dedicated in the late Koryo, some being produced by Yuan Chinese artists. The outer reliquary is of white porcelain, in contrast to Silla reliquaries. Inside the white porcelain bowl is a bronze one and inside the bronze bowl is an outer casket of beaten silver in the form of an octagonal pavilion. This casket in turn contains a reliquary shaped like an oval stupa, incised with standing Buddhas, supported on a lotus pedestal. This late Koryo reliquary shows Mongol influence.[67]

Secular metalware

Metalwork made for secular use includes tableware for aristocrats, such as rice bowls, spoons and chopsticks, spouted bowls (possibly for ritual use) and cupstands. Women's items such as needlecases and mirrors have often been excavated from tombs together with celadon rouge boxes and hair-oil bottles. Small gilt-bronze appliqué decorations were made for fixing on to costumes and coffins. A great variety of small bronze hairpins, scissors, earpicks and razors are further evidence of the widespread use of bronze in everyday life in the Koryo period. The razors were presumably used by Buddhist monks for shaving their heads.

Koryo mirrors show much influence from Chinese Song and Yuan models. It is in fact very difficult to differentiate between them in many cases, since Chinese motifs were copied in their entirety. Kim Won-yong states that Koryo mirrors contain less tin than Chinese ones, although one example of scientific analysis of the metal content of Korean and Chinese mirrors has revealed that the copper, tin and lead alloy used is similar in both.[68] It is quite possible that some of the mirrors excavated from Koryo tombs are Chinese. However, there are Koryo mirrors which can be dated and provenanced from their inscriptions.[69] Chinese decorative motifs originating in the Han dynasty include dragons, designs resembling the letters T, L and V, commonly known as TLV designs, and the animals of the four directions. Tang style motifs include vine scrolls, 'precious visage' flowers and figures playing the lute. Pairs of fish and a boat scene popular in the Song also appear on Koryo mirrors. Most Chinese-influenced Koryo mirrors are either circular or foliate, whereas more Korean shapes are bell and square shapes. Mirrors with geometric motifs and zodiac figures and completely undecorated mirrors show less Chinese influence.[70]

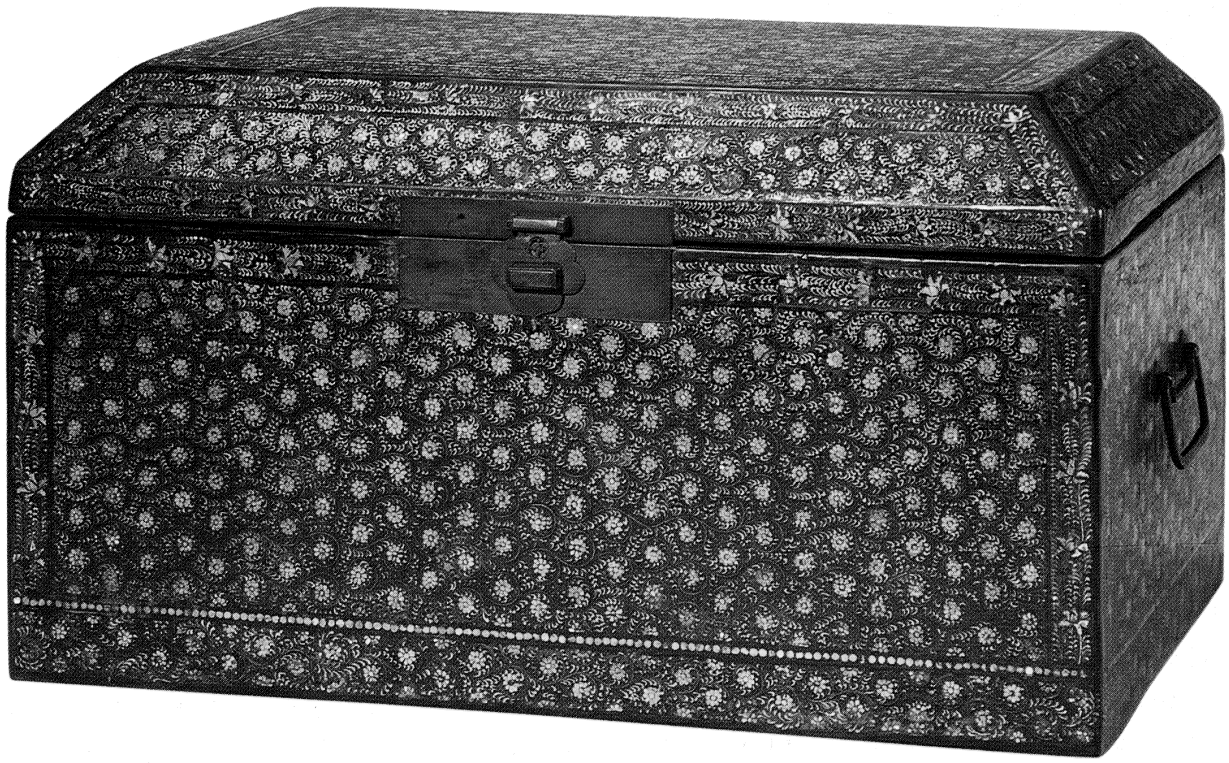
Of the utilitarian tablewares which survive, spoons and chopsticks are most numerous. Koryo spoons are characterized by their S-shaped curved handles, their 'swallow-tail' handle-ends and oval bowls with a pointed tip. In the following Choson dynasty, spoons were made of brass and were much plainer, with a flat handle and rounder bowl. The use of metal spoons and chopsticks in Korea prevails to the present day, in contrast to China and Japan, where wood or ivory chopsticks are used but spoons are not in common use.[71]

50. Above: Silver bowl and ewer, parcel-gilt with engraved decoration and a lotus-shaped lid surmounted by a phoenix. Celadon vessels were often modelled on the shapes of silver and bronze ones. Koryo period, 11th–12th century AD. Max ht: 38 cm.

The few remaining Koryo vessels made completely of silver are evidence of the extravagant lifestyle of the Koryo aristocracy and show a high quality of workmanship and clear Chinese influence in shape. Both the well-known gilt-silver wine-cup and stand in the National Museum of Korea and the ewer and bowl in the Boston Museum of Fine Arts (fig. 50) are shapes often seen in Chinese Qingbai, Ding and Longquan wares. These shapes were also reproduced in Koryo celadons. The Chinese emissary, Xu Jing, who visited Korea in 1123 (see section on Ceramics, below), refers to the widespread use of silver at table. In his chapter on table customs, he writes: 'Many of the wares and vessels are gilded or made of silver, but green pottery wares were held in esteem'.[72] This passage has been taken to mean that celadons were more highly esteemed than silver vessels, but the meaning is not entirely clear. It does, however, show that Koryo aristocrats made widespread use of silver tableware. A characteristic of small Koryo gilt-silver pieces, such as a bracelet in Chonju Museum and a gourd-shaped bottle in Chongju Museum, is the floral decoration in high relief with blossoms composed of dense circular, stylized florets. The gilt decoration on silver needlecases is often very similar to Tang work, being predominantly chased floral scrolls. These also reflect the decoration on illuminated manuscripts.[73]

Lacquer

There are only about fourteen extant pieces of Koryo lacquer,[74] but their quality is evidence of the high level of skill attained by Koryo lacquer workers. Eight of them are for Buddhist use, being rectangular sutra boxes, such as the one in the British Museum (fig. 51). The suggestion has been made that these boxes may have been used to contain the printed Tripitaka Koreana, but the sizes of all the boxes differ and differ also from the



51. Below: Lacquered wooden box for storing Buddhist sutras. The decoration in mother-of-pearl, tortoise-shell and metal wire of peony scrolls and stylized chrysanthemums is paralleled by that inlaid on celadons of the same period. Koryo period, 13th century AD. Length: 47.2 cm.

size of the woodblocks.[75] It is, however, recorded in the *Koryo sa* that a special government agency was set up in 1272, at the request of the wife of Kublai Khan, to manufacture lacquer cases for a set of the Tripitaka.[76] These eight sutra boxes are distinguished by dense and regular decoration of stylized chrysanthemum scrolls inlaid in mother-of-pearl with twisted silver or copper wire. They also have peony scrolls lining the borders, which are very similar to those on Yuan Chinese inlaid lacquer. Both the use of iridescent haliotis shells and the incising of the shells are also similar to Yuan lacquer inlay.[77] Dating of these boxes to the second half of the thirteenth century has been proposed by Okada Jo.[78] Precise dating of Koryo lacquer is, however, impossible at present. Some of the sutra boxes have applied metal Chinese characters which can be interpreted as numbers, suggesting the numbers of sutra volumes to be stored in that box. One box, in the Tokyo National Museum, has an inlaid inscription on the cover reading 'Avatamska sutra'.[79] A small circular box in the Okura Shukokan Museum in Japan is thought to be for containing Buddhist rosaries. It is undoubtedly for Buddhist use because it has a siddham-seed character inlaid on the lid.

Lacquer was also used in the secular world to make cosmetic boxes for aristocratic ladies. These have the same curved, foliate shape as Koryo celadon cosmetic boxes[80] and are inlaid with both mother-of-pearl and tortoise-shell. The tortoise shell is inlaid over red and yellow pigments and the mother-of-pearl differs from that used in the sutra boxes, being thicker, harder and not iridescent. These features show influence from Tang China, where such painted tortoise-shell was called *fuhong* or *fucai*. Examples of this technique can be seen in the Shoso-in treasury in Nara in Japan.[81] For this reason, these cosmetic boxes are probably earlier than the sutra boxes and date to the twelfth century.[82]

The only example of Koryo lacquer inlaid with a pictorial scene similar to that found on celadons and even, occasionally, on bronzes, is a covered rectangular cosmetic box in the National Museum of Korea. It is not in good condition, but enough remains to show that the outside is covered with lacquer-coated hemp cloth and then black lacquer which is inlaid with a scene of willow trees, ducks and water, very similar to scenes on twelfth-century celadons. The decoration is also partly painted in gold, as were some celadons of the thirteenth century.[83] The scene has been compared to a Liao wall-painting in the East Mausoleum at Qingling in the eastern part of Inner Mongolia, thought to be the tomb of Emperor Shengzong of the Liao dynasty. It can be seen as an example of the effect that refugee or captive Liao craftsmen had on Koryo decorative motifs in the twelfth century.[84]

Ceramics

The most famous of Koryo ceramics are celadons, but unglazed stonewares in the Silla tradition as well as black wares and white porcelains were also produced during this period.

Celadons

Koryo celadons were little known in the West until the early twentieth century when they were excavated from Koryo tombs around Kaesong. However, they have been known and appreciated in both Japan and China for a very long time. The Song writer Taiping Laoren, writing about precious items, said: 'The books of the Academy, the wines of the Palace, the