



Some Notes on the Use of Bronze Mirrors in the Tomb of Zhang Wenzao, Liao Period

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Some Notes on the Use of Bronze Mirrors in the Tomb of Zhang Wenzao, Liao Period

Since the 1950s, Chinese archaeologists have excavated numerous tombs of the Liao period (907–1125) in northern and northeastern China. Many were furnished with bronze mirrors, and among them is a group recovered from the tomb of Zhang Wenzao, a wealthy individual who died in the tenth year of the Xianyong period (1074) of the Liao. Zhang Wenzao's cremated remains, buried in 1093 alongside his wife's, were found in the modern village of Xiabali, Xuanhua district in central Hebei province.¹ The well-preserved structure, the interior, and the undisturbed contents of this spacious tomb have contributed new data on the material culture and burial practices during the later phase of the Liao.²

Bordering on the Northern Song empire, this region, then known as Guihua prefecture in the *xijing dao* (western capital circuit), was part of the *nanmian* (southern region), an extensive area covering the southern and eastern parts of the Liao empire.³ The elite of the largely Chinese population in this area, which had been ceded to the Liao by the regimes of the central plain, served as officials in the local administration or belonged to the wealthy merchant or landowning classes. The epitaphs found in the Zhang family tombs identify the family as members of the local elite whose material wealth and social status are reflected in the size and furnishings of their tombs. In structure and layout these tombs show strong affinities with contemporary Northern Song tombs excavated across the border in southern Hebei, northern Henan, and eastern Shaanxi provinces. Like the various members of the Zhang family buried in Xuanhua, the occupants of these tombs had a similar social background.⁴

Recent studies, however, have revealed that a number of features set the Xuanhua tombs apart from these contemporary Northern Song tombs. Scholars who have studied the iconography of the tombs' murals and their furnishings have established that they incorporated certain elements that combined Chinese and Buddhist beliefs in an afterlife, such as the practice of cremation combined with a burial in a lavishly furnished tomb.⁵

The use of mirrors in the tomb of Zhang Wenzao and his wife may serve as another example of how established traditions were joined by practices associated with Buddhism in order to realize specific beliefs about the world to which the deceased were consigned. Following

a custom common in ancient China, husband and wife were buried with several bronze mirrors. Altogether four mirrors had been placed in different positions within the tomb: one mirror was reputedly found inside the coffin among the cremated remains while a second mirror decorated with alternating bands of braids and striations had been placed among burial goods in the rear chamber.⁶ In addition, two plain mirrors had originally been suspended from the ceilings of both the front room and the rear chamber. The overall number and the unusual placement especially of these last two mirrors force us to reconsider our perception that mirrors were mere vanity objects. The central question is: if mirrors were vanity objects, why were they placed on ceilings high above and out of reach of the deceased?

Little attention has been paid to the functional value of mirrors in ancient China. In fact, scholars tend to classify mirrors as utensils, objects often made in large numbers for everyday use. The material record seems to support this contention. Finds from tombs include a significant number of objects that relate to the use of mirrors as reflectors, most notably boxes used for protection and storage and mirror stands. In addition, murals painted on the walls of tombs portray the domestic settings and social contexts in which mirrors were used. Texts further elaborate and confirm these visual descriptions. Together the data do indeed seem to suggest that the principal function of mirrors in day-to-day life was as reflectors. In life and in the afterlife they allowed their owners to see and adjust their appearance.

While tombs provide important information on mirrors, they are by no means the only contexts in which mirrors appeared. Archaeologists have come across many mirrors in hoards, where they were hidden with other precious objects in times of crises and conflict. From at least the Northern Wei period (386–534), mirrors were deposited alongside other goods in underground relic chambers, a practice that seems to have been more common in the Liao and Song (960–1279) periods as we shall discover. In some cases, mirrors were also attached to the exterior structure of pagodas that were built above relic chambers.

The discovery of mirrors in such diverse contexts questions the idea that these artifacts were mere utensils. Texts, above all mirror inscriptions, indicate that a range of secondary or “invisible” functions was attached to mirrors. They were closely tied to associations evoked by the mirror’s unusual physical features. Mirrors were small, tactile objects whose disc-like form combined both a smooth front and a textured, decorated back. With their shiny silvery or golden surfaces, mirrors could catch and reflect light. As objects with such distinctive formal properties, mirrors were invested with specific qualities and powers drawn on analogies with light and permanence⁷ that shaped the ways in which mirrors were put to use in life and in the afterlife, for instance, as talismans, reflectors, or tokens of longevity.

This paper is concerned with the ways in which the four mirrors were employed in the tomb of Zhang Wenzao. Two interesting features have already been noted. The first involves the number of mirrors in the tomb, which clearly exceeded that required for the occupants’ personal use, and the second their unusual placement. Both features suggest that the role of mirrors in this tomb is complex. I shall argue that the different locations in which these mirrors were placed were chosen to express or realize specific mirror functions. Like all burial goods found in Zhang’s

tomb, the placement and packaging of the four mirrors was part of the original burial plan that had been imposed on the structure, decoration, and furnishings of the tomb. We will see that within this tomb, murals and artifacts were intended to work together, thereby defining functions and activities that were important to the deceased even in the afterlife. It will be suggested that the use of mirrors in the tomb of Zhang Wenzao expressed two principal concerns of the deceased couple: while they wished to be able to look after their physical well-being, they were even more concerned about their spiritual welfare, particularly their transcendence into propitious realms. For this, they created an auspicious environment in which cosmological and Buddhist notions were joined. In this context, mirrors occupied a central position because of their links with both cosmological and Buddhist ideas.

Preparing for Life in the Afterlife

In structure and furnishings, the tomb of Zhang Wenzao was firmly rooted in the tradition of Han-Chinese tomb burials. Like many large tombs built from the fifth century BC onward, his tomb was conceived as an underground living space, with multiple rooms and rich furnishings to provide the deceased and his wife with sufficient material comforts to sustain life in the afterlife.⁸

Zhang's tomb consisted of two spacious chambers connected by a short arched hallway (fig. 1a).⁹ Inside the tomb, the brickwork was carved and painted in imitation of contemporary timber structures (fig. 1b). A system of brackets inserted between the upper ends of painted pillars and crossbeams both supported and separated the corbeled-dome ceiling from the tomb chamber. The chamber walls and ceilings were painted with figures, birds, flowers, and constellations. The west wall of the front room

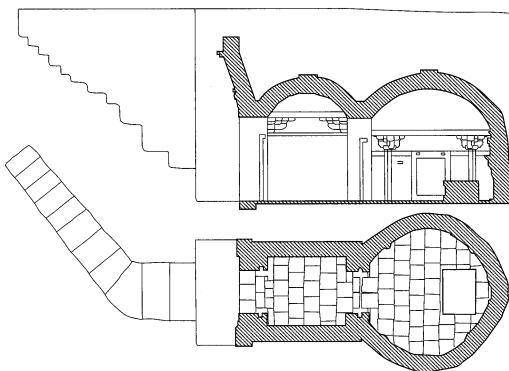


Fig. 1a. Section and plan of the tomb of Zhang Wenzao (d. 1074) at Xiabali, Xuanhua, Hebei, showing the two chambers. After *Wenwu*, no. 9 (1996), 14–46, fig. 2.



Fig. 1b. Interior view of the tomb of Zhang Wenzao showing the first chamber, arched hallway, and burial chamber. After *Xuanhua Liaomubihua* [Wall paintings in the Liao tombs at Xuanhua] (Beijing: Wenwu chubanshe, 2001), pl. 28.

Fig. 2a. Plan of the distribution of burial goods in the tomb of Zhang Wenzao. After *Wenwu*, no. 9 (1996), 14–46, fig. 13.

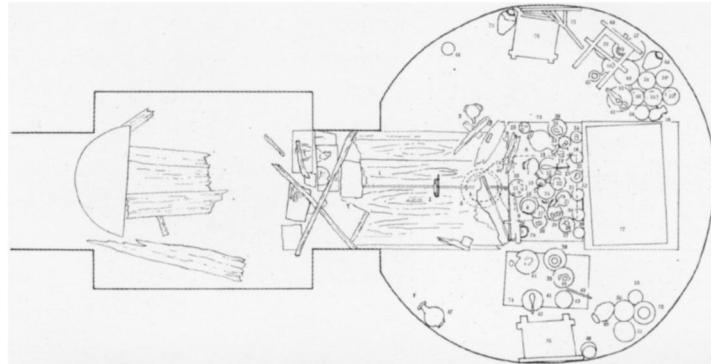


Fig. 2b. Wooden coffin and table with burial goods in the rear chamber of the tomb of Zhang Wenzao. After *Xuanhua Liaomu* [Liao tombs at Xuanhua] (Beijing: Wenwu chubanshe, 2001), 2: pl. 34.



carried a depiction of musicians and dancers while the opposite wall was decorated with a group of women and children involved in preparing tea and copying sutras.¹⁰ A pair of guardians flanked the entrance to the larger rear chamber. Pieces of furniture and female attendants involved in different activities were painted on the walls between a door and a window.¹¹ At the back of the room, a pair of flowering bushes and cranes flanked a door painted in the center of the rear wall.

The contents of Zhang's tomb were undisturbed, revealing the kinds of furnishings deemed essential for the afterlife. The majority of burial goods had been placed in the rear chamber in front of a coffin platform with the cremated remains of the two occupants (fig. 2a). In front of the platform, the arrangement of burial goods indicates that they were placed in groups (fig. 2b). A large altar table occupied a central position in front of the platform. Eating and drinking vessels, which contained the remains of food and wine, were displayed on the table. Near the eastern wall of the chamber, a much smaller table with dishes full of food and a chair had been set up for dining. Objects placed at the opposite side of the chamber near the western wall suggest that a small grooming or dressing area had been created there: a wooden chair was positioned next to a wooden clothes rack. A shallow ceramic bowl, a foldable wooden mirror stand, and a bronze mirror completed the set of grooming utensils (fig. 3).

The interior of Zhang's tomb thus recreated a comfortable domestic setting for the occupant and his wife. The murals painted on the lower parts of the chamber walls and the burial goods convey an idea about the

Fig. 3. View of interior of the tomb of Zhang Wenzao, with a mirror under the top of the collapsed wooden mirror stand. After *Xuanhua Liaomu*, 2: pl. 65.



people and objects that surrounded the deceased in life. They also attest to some of the occupants' activities. In the seclusion of their private quarters, they were entertained by music and dance while feasting on a variety of dishes.¹² As preparations were under way for making tea, they could concentrate on the copying of sutras for which paper and brushes had been laid out on a table depicted on the wall.

The people who furnished the tomb also ensured that the occupants could take care of their physical appearance.¹³ The array of goods placed on one side of the coffin platform provided the necessary utensils and included a bronze mirror (fig. 4). In its original position, it had been placed on a foldable mirror stand (fig. 5). A silk cord or sash, which was still attached to the mirror boss at the time of excavation, had been used to tie it to the back of the stand. A number of murals discovered in large chamber tombs of the late Northern Song across the border in southern Hebei, eastern Shaanxi, and northern Henan, illustrate how similar mirror stands graced the homes of wealthy families.¹⁴ In tomb M1 (dated 1099) at Baisha, Henan, a well-known scene painted on the southwestern wall of the tomb chamber depicts a lady who is adjusting her headdress in front

Fig. 4. Mirror from the tomb of Zhang Wenzao. After *Xuanhua Liaomu*, 2: pl. 58.



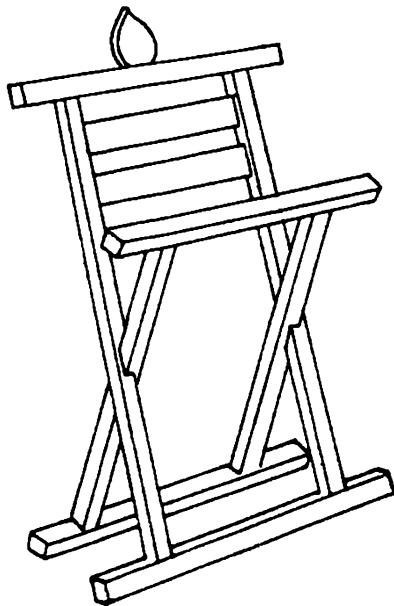


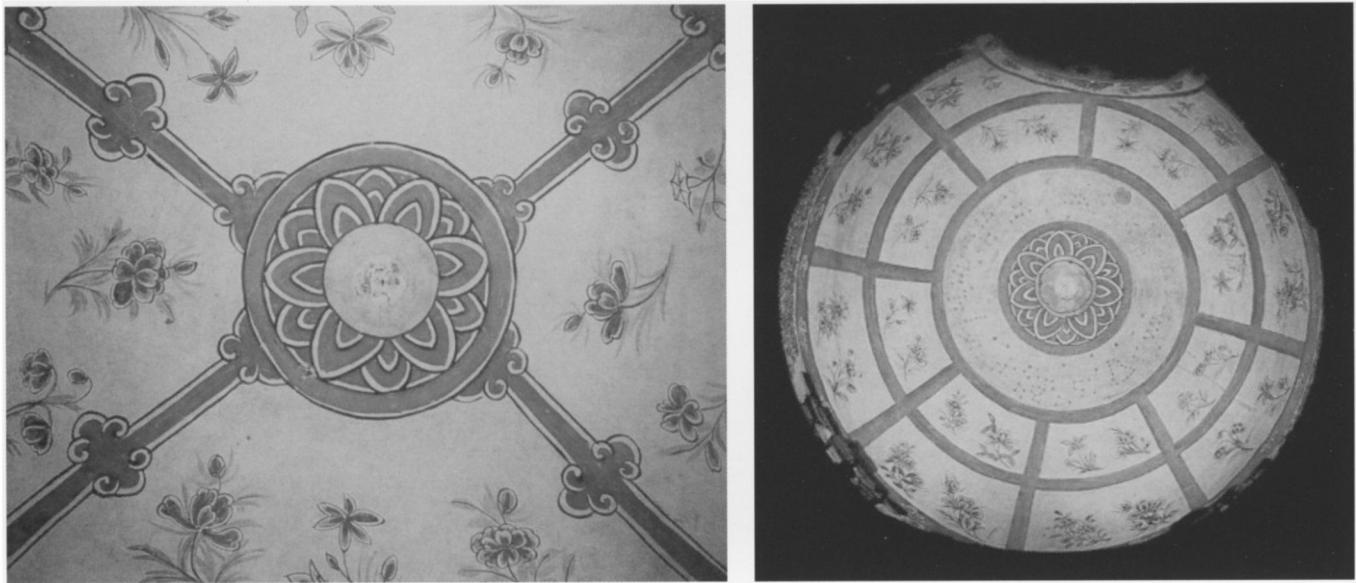
Fig. 5. Drawing of a mirror stand resembling the one found in the tomb of Zhang Wenzao. After *Xuanhua Liaomu*, 2: pl. 68.

Fig. 6. Figure of a lady adjusting her hair in front of a mirror in tomb M1 at Baisha, Henan (1099). After *Baisha Songmu* [Song tombs at Baisha] (Beijing: Wenwu chubanshe, 1957), pl. 27.



of a large mirror (fig. 6). An elaborately carved mirror stand (bottom left) similar to the one found in Zhang's tomb supports the mirror that had been taken out of the mirror box being held by the woman just behind the stand.¹⁵

Bronze mirrors abound in tombs of the Liao and Song across China, a fact that reflects the scale of mirror production at that time.¹⁶ Many mirrors recovered from Liao tombs were of Song origin and may have come into the possession of the Liao either through trade with the Northern Song or as tribute.¹⁷ The development of a specialized mirror-casting industry in the course of the Song was part of the overall commercial expansion that took place from the tenth century onward. Favorable economic conditions paired with a phase of social and political stability stimulated the demand for a wide range of products and commodities. Specialized workshops under government supervision and a growing number of privately run family businesses satisfied the demand for luxuries and everyday utensils such as mirrors. A particular type of mirror decorated only with a simple inscription cartouche advertising the workshop and place of manufacture emerged in this period.¹⁸ Finds of this mirror type in regions associated with the Liao, and subsequently the Jin, illustrate the volume and geographic distribution of Song mirror production and trade.¹⁹ Along with other luxuries, bronze mirrors appear to have been highly coveted by the Liao nobility. Like the single occupant of a high-ranking mid tenth-century tomb unearthed near Chifeng in Inner Mongolia, who was buried with five mirrors, Liao tombs were often furnished with multiple mirrors.²⁰ We know from rare contextual evidence found in Khitan tombs that some mirrors were used as vanity objects. A scene from a large mural painted on the northern wall of the tomb passage in a Liao tomb (M1) unearthed in Kulunqi, Jilin province, shows a lady gazing at her reflection in a mirror held up by a female assistant.²¹ In the undisturbed tomb of Yelü Yüzhi (dated 941), a member of the royal Yelü clan, two bronze mirrors discovered near silver hairpins and small silver powder boxes provide clues on the use of these mirrors.²² On the whole, however, mirror boxes or mirror stands, ubiquitous in tombs of the Song, are remarkably absent in the majority of Liao tombs.²³ The bronze mirror and wooden mirror stand found in the tombs of



Figs. 7a–b. The interior of the tomb of Zhang Wenzao showing the corbeled-dome ceiling above the front room (a) and dome of the tomb chamber (b). After *Xuanhua Liaomu*, 2: pl. 23 and 36.

Zhang Wenzao and some of his relatives must therefore be considered among the few examples recovered from Liao tombs. More importantly, in this particular funerary context, they help define the role of one mirror that was clearly intended to function as a vanity object. The following sections show that the context and placement of the two ceiling mirrors discovered in the Zhang's tomb served a very different purpose. Context and placement link them to cosmological ideas as well as to practices that may have been related to Buddhism.

The Domed Ceiling: A Representation of the Heavens

It has to be emphasized that the ceiling mirrors in the tomb of Zhang Wenzao were the only funerary objects not included among the display on the floor of the tomb chamber. Instead, they had been positioned separately, incorporated into the ceiling structures of the front room (fig. 7a) and burial chamber (fig. 7b). The ceiling mirror above the burial chamber is of particular interest. Originally, the mirror had been suspended from the center of a large open lotus flower painted in the apex of the ceiling. Depictions of the sun and the twenty-eight constellations, reference points for the motion of the sun, moon, and planets, surrounded the lotus. Flower sprays filled the lower parts of the sloping ceiling.

The impressive domed ceiling and its painted decoration were part of a representation of the universe that was based on a complex cosmological scheme in which the ideal alignment of all cosmic forces created an auspicious environment from which the deceased could benefit. For this, the architectural structure of the tomb recreated the basic spatial plan of the universe while the interior decoration and furnishings reproduced its primary components.²⁴ The cosmos was divided into heaven and earth. The earth's square plane was believed to project into the dome of heaven, whose circular outline was defined by the circle of the celestial equatorial line.²⁵

In Zhang's tomb, the domed ceiling structure reproduced the hemispherical shape of heaven, and the painted depictions of the heavenly bodies completed the image of the heavens. Following the observation that all heavenly bodies rotated around the pole star, images of the sun and the twenty-eight constellations, were arranged in a circle. Such

depictions of the sky and its principal bodies first appeared in tombs in the Western Han period (206 BC–AD 8).²⁶ One of the earliest examples was discovered in a tomb of late Western Han date near Xi'an in Shaanxi province.²⁷ The arrangement of the twenty-eight constellations, the sun, the moon, and the four directional animals in a circular configuration on the vaulted ceiling over the tomb chamber anticipated later depictions of the heavens in tombs. Well-known post-Han examples include, among others, ceiling paintings discovered in the tomb of Lou Rui (dated 570) of the Northern Qi period (550–577) at Taiyuan, Shanxi; in the tomb of Qian Kuan (dated 895) of the late Tang dynasty (618–906), unearthed near Hangzhou in Zhejiang; and in the recently excavated tomb of Wang Chuzhi (dated 923) at Quyang Xian in Hebei.²⁸ As in the ceiling painting in the tomb of Zhang Wenzao, these detailed representations of the sky combined images of the sun and the moon with those of the twenty-eight constellations in an elliptical or circular configuration that followed the shape of the vaulted or domed ceilings. Scientific star maps may have provided the basis for these arrangements, as Dieter Kuhn has suggested.²⁹

We must place the representation of the heavens in Zhang's tomb in this long-established tradition. Less-detailed paintings of the sky discovered in Liao as well as Song tombs illustrate that this tradition was continued during these periods.³⁰ Yet one important aspect that distinguishes the depiction of the heavens in Zhang's tomb (and in those of his relatives) is the use of an undecorated mirror in its center. This feature appears to be unique in tombs. However, it is by no means unusual because for a long time mirrors had strong cosmological associations.

Cosmological Mirrors

Long before mirrors appeared at the center of a painted depiction of the heavens in the tomb of Zhang Wenzao, they were linked with cosmological ideas. It is no coincidence that the appearance of so-called cosmological mirrors in the middle of the Western Han period coincided with the formation of a comprehensive view of the universe. The underlying geometric structure of the cosmos was rendered in diagrams and charts adapted into designs that adorned a number of specific objects. With regard to mirrors, the term “cosmological” refers to the cosmological elements that adorn the mirror's nonreflective side. The abstract and figurative motifs, patterns, and designs resembled diagrams describing the schematic structure and workings of the universe.³¹

The well-known TLV design on mirrors of this type, which first appeared in the middle of the Western Han period, is accepted as representing one of the most comprehensive cosmological diagrams.³² The arrangement of markings named after the Roman letters *T*, *L*, and *V* within the constraints of the circular mirror frame, and in conjunction with twelve cyclical characters known as the *dizhi* (earthly branches) and the *sishen* (four directional creatures), marked principal celestial and terrestrial demarcations, thus reproducing the basic schematic framework of the cosmos.

Associations with the heavens are particularly strong in early cosmological mirror designs and inscriptions. The circular outline of many early mirrors conveyed images of the round shape of the sun and the full moon while the bright and shiny specular metal evoked associations of the sun and the moon, whose light was reflected in the polished mirror surfaces. On another mirror type of the early Western Han period,

Fig. 8. Mirror with Clouds and Nebulae, 2nd century BC, Diam. 10 cm. The Cleveland Museum of Art, Gift of Drs. Thomas and Martha Carter in Honor of Sherman E. Lee, 1995.288.



small conical bosses grouped in clusters and linked by fine lines, recall starry diagrams known from depictions in contemporary tombs (fig. 8).³³ Analogies with stars are reinforced in mirror inscriptions that often compare the mirror's brightness with the light of the sun and the moon by using the terms *ming* (bright) or *guang* (luminous) to describe the mirror's brilliance.³⁴

Throughout later periods, cosmological mirrors formed a small but distinctive group whose designs paired established and new sets of motifs.³⁵ Neo-Confucian cosmologists and thinkers of the Northern Song such as Zhou Dunyi (1017–1073), Shao Yong (1011–1077), and Zhu Xi (1130–1200) not only reaffirmed principles of Han cosmology in their writings but broadened the scope of cosmological discourse.³⁶ In particular, they established schematic systems of correspondences

Fig. 9. Rubbing of a bronze mirror decorated with cosmological motifs, Shijiazhuang, Hebei, c. 11th century. After *Lidai tongjing wenshi* [Decorative patterns on bronze mirrors through the dynasties] (Shijiazhuang: Hebei meishu chubanshe, 1996), fig. 198.



incorporating complex numerological sequences taken from a numerology that was based on the *Yijing*.³⁷ We find elements of Northern Song cosmology illustrated on cosmological mirrors of the Song, where depictions of the twenty-eight constellations and trigrams of the *Yijing* made up the abstract counterpart of the four directional creatures and the twelve animals of the duodenary series, animal representations of the twelve earthly branches. A rare cosmological mirror attributed to the Northern Song from Zhangjiakou in Hebei (fig. 9) combines both sets of motifs. Starting from the four directional creatures at the center, concentric bands depicting the animals of the zodiac, the eight trigrams and the twenty-eight constellations are arranged in ascending order toward the mirror rim. A lengthy inscription cast on the mirror rim accompanies the diagrammatic design.

This mirror has the virtue of Chang Geng [the evening star]
And the essence of the White Tiger,
The mutual endowments of Yin and Yang [are present in it],
The mysterious spirituality of Mountains and Rivers [is fulfilled
in it].
With due observance of the regularities of the Heavens,
And due regard to the tranquility of the Earth,
The Eight Trigrams are exhibited upon it,
And the Five Elements disposed in order on it.
Let none of the hundred spiritual beings hide their face from it,
Let none of the myriad things withhold their reflection from it.
Whoever possesses this mirror and treasures it,
Will meet with good fortune and achieve exalted rank.³⁸

On this mirror, text and image are employed in a visual description of the universe. The inscription suggests that the ideal alignment of principal cosmological forces benefited those who held the mirror in their possession. In a late tenth-century tomb at Lin'an in Zhejiang, a bronze mirror decorated with the eight trigrams and the four directional animals was positioned in a recess set into the vaulted ceiling above the tomb chamber.³⁹ Although there is no information on its function, it is possible that, through the display of two important cosmological features, the mirror created an auspicious space for the occupant.⁴⁰ This was achieved from a position in the center of the otherwise undecorated ceiling. In the Five Dynasties tombs of Mme Shuiqiu (d. 901) at Lin'an in Zhejiang and in the tomb of Wang Chuzhi at Quyang in Hebei mentioned above, the arrangement was reversed. A bronze mirror was set into a recess in the center of the vaulted ceiling, which in both tombs carried a depiction of the heavens.⁴¹

In the three tombs described here, mirrors were deliberately placed on the ceiling, a location with strong cosmological ties as it was reserved for depictions of the heavens. In the context of these tombs, this position reinforced already existing cosmological associations attached to mirrors.

The ceiling mirror above the burial chamber in Zhang's tomb may similarly have had ties with the cosmological elements that dominate the ceiling painting. At the same time, it has to be emphasized that under the Liao and contemporary Northern Song, ceiling mirrors prevailed in both secular and religious burial contexts without cosmological ties, namely in tombs and underground relic chambers.

Evidence for Ceiling Mirrors in Tombs and Relic Deposits of the Liao and Northern Song Periods

When discussing Liao and Northern Song tombs, archaeologists often fail to mention the positioning of mirrors within the tomb context. It is therefore a little-known feature of burials of these periods that mirrors were sometimes incorporated into the architectural structure of a tomb.⁴² One example is the tomb of the Princess of Chenguo (d. 1018) in Naiman Banner, Inner Mongolia. The princess, a daughter of the Liao Emperor Shengzong (r. 983–1031), was buried in a lavishly furnished tomb containing an unusually large bronze mirror.⁴³ At the time of burial the mirror had been suspended with a thick silver cord from the wooden boards lining the walls of the burial chamber. In a similar way, six mirrors had been fastened to the interior walls of an octagonal rear chamber of a tomb that belonged to a high-ranking individual buried in Ningcheng Xian, Inner Mongolia.⁴⁴

In this context, it should also be pointed out that mirrors appeared on the ceilings of a number of Liao tombs and in tombs of the Northern Song built close to the boundaries of the Liao empire. In 1992, the tomb of Yelü Yüzhi (d. 941), left premier of the Dongdan Kingdom of the Liao, was excavated near Chifeng, Inner Mongolia.⁴⁵ Glazed bricks had been used to embellish the domed ceiling of the tomb chamber, where a bronze mirror had been attached to a hook in the highest point of the ceiling. A mirror was discovered in an identical ceiling position in a late Northern Song tomb at Mangshan in Henan province.⁴⁶ The mirror was suspended directly above the coffin of the deceased, whose burial goods indicate that she may have been connected to the Northern Song court.

Under the Liao and Northern Song, mirrors were not only buried in secular burials. Relic deposits, hidden in specially constructed chambers within *digong* (pagoda foundations) or concealed in the upper parts of a *tiangong* (pagoda structure), sometimes contained bronze mirrors. In 1988, archaeologists discovered an undisturbed relic deposit inside a spacious chamber located in the pinnacle of the Yanchangsita Pagoda (1043) in Chaoyang, Liaoning province.⁴⁷ The chamber was filled with a large stone casket that held the relics in a series of reliquaries buried in a miniature coffin. Eight bronze mirrors were arranged around the coffin while a ninth had been suspended above the coffin. Farther south, beyond the border in Northern Song territory, a deposit in the Miaodaosi Xita Pagoda (1069) in Linyi, Shanxi province, was sealed about a quarter of a century after the burial of the Yanchangsita Pagoda deposit.⁴⁸ It was hidden in a large chamber built deep inside the pagoda foundations. Conceived and furnished like contemporary tombs in this area, it had structural features and paintings imitating wooden architecture. Several reliquaries filled with minute granules, a tooth, and bones were encased in a stone casket set on a pedestal directly under the corbeled-dome ceiling (fig. 10a). As in the relic chamber of the Yanchangsita Pagoda, several mirrors had been placed around the coffin-shaped silver reliquary inside the casket. Another mirror was attached to the flat ceiling stone in the apex of the pyramid-shaped ceiling (fig. 10b).⁴⁹ In at least three other relic deposits of Northern Song date, mirrors were found in a ceiling position in the relic chamber. They include the Jingzhisita Pagoda (977) and the Jingzhongyuanta Pagoda (995) in Dingzhou, Hebei, and the Fushengsita Pagoda deposit (1032) in Dengzhou, Henan.⁵⁰

Fig. 10a. Section of the underground chamber of the Miaodaosi Xita Pagoda, Linyi, Shanxi, 1069, showing the reliquaries in a casket on a pedestal under the corbeled-dome ceiling. After *Wenwu*, no. 3 (1997), fig. 3.

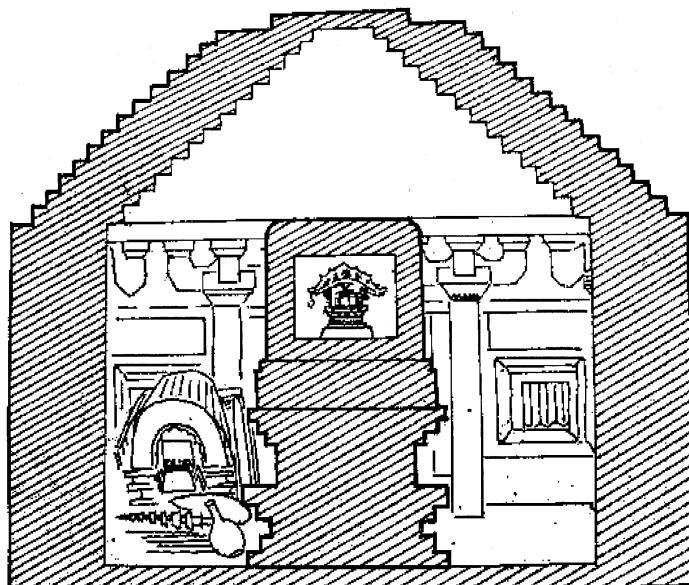
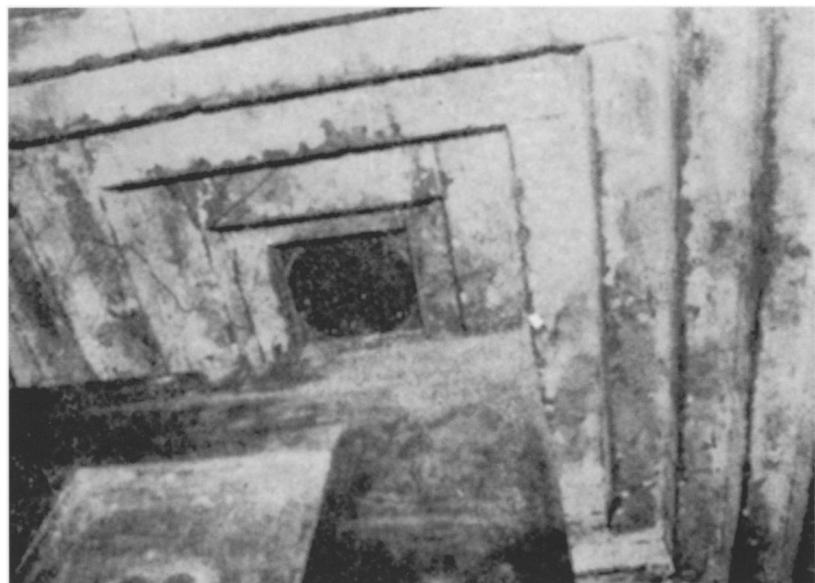


Fig. 10b. The stone ceiling of the underground relic chamber of the Miaodaosi Xita Pagoda showing the apex where a mirror had been placed. After *Wenwu*, no. 3 (1997), fig. 40.



We can only speculate about the function of these ceiling mirrors, but the practice of incorporating mirrors in the interior structure of tombs seems to have been well established in northern and northeastern parts of the Liao territory. Ceiling mirrors found in Liao tombs unearthed in central China, including the tombs of the Zhang family, attest that this practice was known also in southern areas of the Liao. Here, in the modern provinces of southern Hebei, northern Henan, and eastern Shaanxi, ceiling mirrors were discovered in a small number of tombs attributed to the Northern Song period. However, in these northern parts of the Northern Song empire, ceiling mirrors appear to have prevailed in Buddhist relic deposits rather than in secular tombs.

Questions arise from the use of ceiling mirrors in both tombs and Buddhist relic deposits under the Liao and contemporary Northern Song. In which context did mirrors first appear in this position, in tombs or in relic deposits? Where did this practice first arise, in the far northeast or in central China? And in what ways were tombs and relic deposits linked? In order to find answers to these questions we must turn to the second principal element in the ceiling painting in Zhang Wenzao's tomb, the lotus painted in the apex of the ceiling.

Fig. 11. Lotus flower painted on the ceiling of cave 311, Dunhuang, Gansu, Sui. After *Zhongguo shiku: Dunhuang Mogaoku [Chinese caves: the Mogao caves at Dunhuang]* (Tokyo: Wenwu chubanshe, 1984), 2: 44.



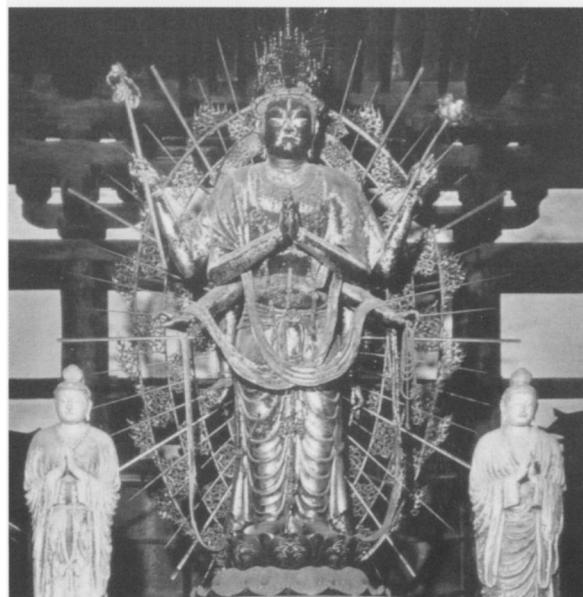
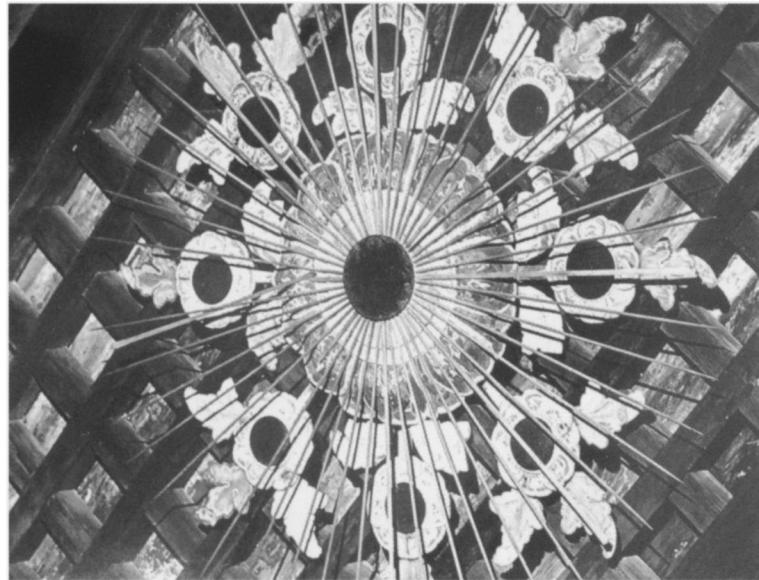
Lotus and Mirrors in Buddhist Contexts

The lotus already adorned tomb ceilings in the Eastern Han period.⁵¹ One of the earliest examples appears in a late Eastern Han tomb at Leitai in Gansu province where a large open lotus flower was painted in the center of the vaulted ceiling above each of the three chambers.⁵² In other Eastern Han tombs in Hebei and Zhejiang, painted or carved lotus flowers appeared in conjunction with the depiction of a central square resting on four *zaojing* (cornices). Scholars have argued that such depictions have their roots in Han Chinese palace architecture where lotus flowers adorned coffer-shaped wooden ceilings known as *zaojing*.⁵³ According to Uehara Kazu, literary references of the Han and Six Dynasties periods (222–589) indicate that the lotus was regarded as an auspicious motif with many connotations. For instance, fire-preventing powers were attributed to the lotus because of its obvious connection with water. Furthermore, because of its dazzling white flower that when fully open resembles a full circle, the lotus was linked to the light of the sun and the moon, an observation that may be supported by evidence discovered in a tomb (M5) at Jiuquan in Gansu dated to the late fourth or fifth century AD.⁵⁴ In this tomb, a lotus was painted in the center of the domed ceiling in the front chamber. While it occupies the most central position on the flat ceiling stone, it is accompanied by images of the sun and the moon on the lower parts of the ceiling.⁵⁵

Although in China the lotus motif is most commonly associated with Buddhism, we find it in Buddhist contexts only during the middle and later part of the Six Dynasties period as the propagation of Buddhist teachings and images gained the support of Chinese emperors. Work on the Buddhist cave temples in Dunhuang in Gansu province, and in Longmen, Henan province, were begun during this time, and we find the lotus as a central ceiling motif dominating ceiling designs in many cave temples at Dunhuang (fig. 11). Set in the apex of the many domed cave ceilings, the lotus appeared on its own or in the center of a coffer-shaped motif.⁵⁶

Often, the lotus was at the center of a carved or painted canopy that was suspended over a Buddhist deity like a parasol or canopy, symbolizing the emanation of light radiating from the liberated or enlightened mind. Such canopies were articles of ornamentation, objects that could heighten

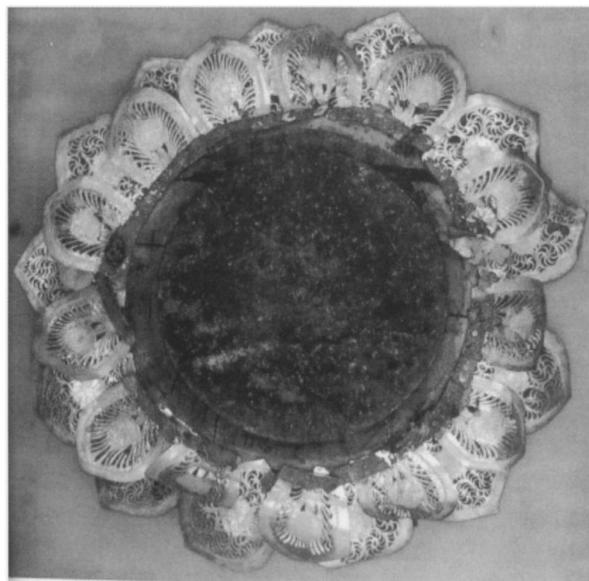
Figs. 12a–b. A large canopy with bronze mirrors (a), suspended above the figures of Fukū-kenjaku-kannon flanked by Nikkō and Gakkō (b), at the Hokke-dō of the Tōdai-ji in Nara, Japan, mid 8th century. After Uehara Masato, "Lengamon," *Nihon no bijutsu* 359 (1996), pl. 9.



the magnificent appearance of Buddhist deities and that played an integral part in the efficacy of Buddhist rituals.⁵⁷ Many early examples of the Nara (710–794) and Heian periods (794–1185) survive throughout Japan in Buddhist temples and devotional halls. Among the earliest examples is a large canopy, suspended from the ceiling above the assemblage of Fukū-kenjaku-kannon flanked by Nikkō and Gakkō in the inner sanctum of the Hokke-dō at the Tōdai-ji in Nara dating to the mid eighth century (figs. 12a–b).⁵⁸ The canopy was made to resemble an open lotus flower and consisted of a central lotus surrounded by eight smaller lotus flowers. A bronze mirror was attached to the center of each lotus. One of the mirrors inlaid at the center of a lotus is decorated with *apsaras* (heavenly beings) and the twelve calendrical animals.⁵⁹

One of the most important finds in China in which a lotus flower was employed in a three-dimensional canopy was discovered in the underground relic deposit at Famen Temple at Fufeng in Shaanxi province, which was sealed in 874. The deposit was housed in an underground structure that was built to house and safeguard the relics, and followed the layout of a contemporary tomb. It consisted of three spacious interconnected chambers, each covered by a domed ceiling. In

Fig. 13. Mirror in an openwork lotus frame from the relic chamber at Famen Temple, Fufeng, Shaanxi, 874. After *Famen si digong zhenbao* [Treasures from the underground relic deposit of the Famen Temple] (Xi'an: Shaanxi renmin meishu chubanshe, 1989), pl. 58.



the rear chamber, a large lotus flower consisting of two layers of petals made of thin openwork bronze sheet that had been further enhanced by gilding (fig. 13), was attached to the center of the ceiling above the casket holding a series of reliquaries containing the relics. More important to this discussion, however, is the fact that two large bronze mirrors were placed inside the lotus.⁶⁰ These mirrors appear in conjunction with a lotus, just as in canopies in contemporary Japanese Buddhist temples and halls, and similar to the painted lotus and mirror on the ceilings of the front room and burial chamber in the tomb of Zhang Wenzao (and in most of the Zhang family tombs at Xuanhua). While painted depictions of lotus flowers on ceilings are known from a number of Liao tombs, the combination of a painted lotus with a central mirror has so far been found only once in a Liao tomb excavated in the vicinity of Beijing.⁶¹

There is little information to establish whether or not the lotus flowers in these Liao tombs had Buddhist associations. In the tombs of Zhang Wenzao and his relatives, however, important contextual evidence has been used to emphasize the Buddhist ties of the tomb occupants that are described in their epitaph inscriptions.⁶² Like other members of the Zhang family, the bodies of Zhang Wenzao and his wife had been cremated, a custom promoted and followed by Buddhists during the Northern Song and Liao. Moreover, Buddhist *dharanis*, or special incantations, were written in ink on the wooden coffin placed in the tomb chamber.⁶³ The murals in the front room and rear chamber as on the lintels above the entrance leading into the burial chamber all show scenes that relate to preparing tea and copying sutras.⁶⁴

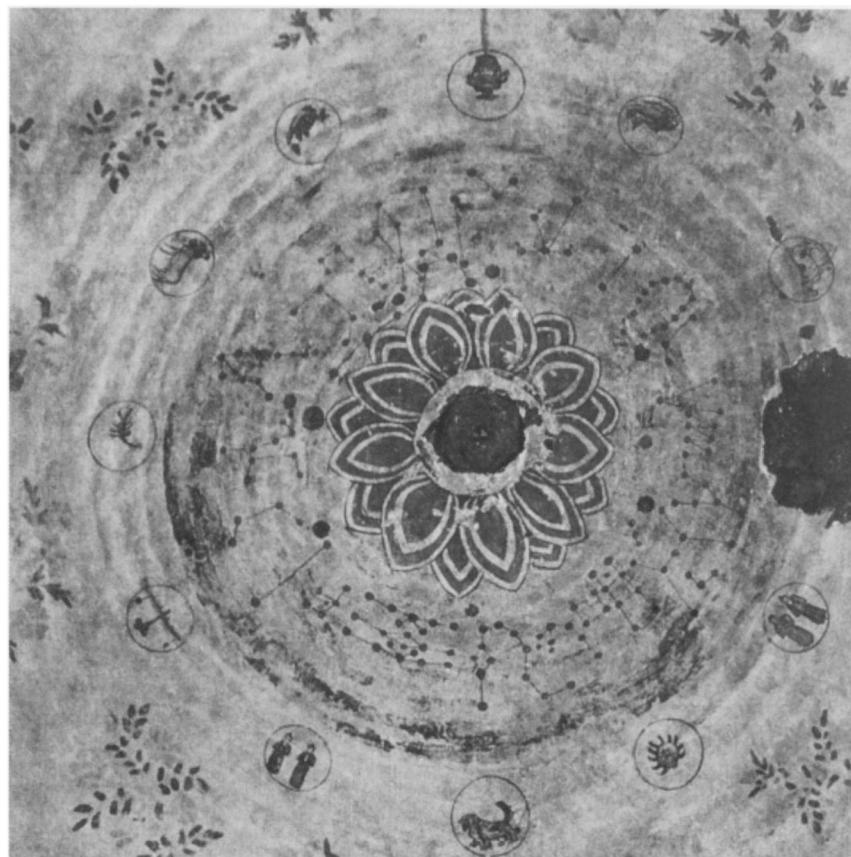
Tansen Sen's study on the ceiling paintings in the tombs of Zhang Gongyou (d. 1113) and Zhang Shiqing (d. 1116) proposed that the representations of the twenty-eight constellations, the nine luminaries, and the twelve signs of the Western zodiac provide further proof of Buddhist ties (fig. 14). According to Sen, these iconographic elements are related to a specific type of mandala known as a star mandala, employed in esoteric Buddhist rituals in both China and Japan where several early examples survive.⁶⁵ Star mandalas and the more elaborate Xuanhua ceiling paintings share common iconographic elements in the form of personified deities or animals and star diagrams as well as a central lotus flower. Moreover, their principal function was, among other things, to

achieve rebirth in fortunate realms, thus complying with the content of the sutra texts cited in the Xuanhua tombs, as demonstrated by Hsueh-man Shen.⁶⁶

In Buddhism, meditation and ritual were key aspects in the process of seeking and gaining enlightenment in the quest for transcending into a realm or reality free of suffering and illusions. Paul Demiéville has demonstrated how in early Buddhist texts the mirror image was used as a metaphor for the enlightened mind, an analogy based on the reflective properties of the polished mirror surface. In the writings of the early Chinese philosophers, the mirror image was employed to illustrate the passivity and detachment of the enlightened mind. In Buddhism, the act of cleaning the mirror surface of dust to bring back the originally bright reflective side was likened to the constant efforts of the human mind in a quest to achieve enlightenment.⁶⁷

Canopies were part of the ornaments adorning the innermost space of ritual halls. In these spaces the soft glow of candles and lamps, the fragrance of incense and flowers, and the hue of the numerous gold and silver ornaments created a sensual as well as spiritually stimulating environment. There is indeed evidence in the tomb of Zhang Wenzao that a similar ritual environment may have been created in the confinement of his burial chamber. A bronze lamp was found among burial goods on the table. There are also traces of soot found in the small niches set into the walls of the rear chamber, suggesting that candles or incense may have been burned there. Painted flowers fill the lower slopes of the domed ceilings while the sounds of music would have been heard from the front chamber. The tomb thus created a beautiful ritual space in which its occupants could engage in study and prayer, thus preparing for transcendence into another realm. In the context of this ritual space, the

Fig. 14. Ceiling painting in the tomb of Zhang Shiqing (d. 1116), Xiabali, Xuanhua, Hebei. After *Wenwu*, no. 8 (1975), pl. 1.



lotus and mirror at the highest point of the ceiling—elevated beyond other representations and objects—epitomized the enlightened and transcendent Buddha body.

This paper set out to examine the role of mirrors discovered in the tomb of Zhang Wenzao of the Liao dynasty. His richly furnished tomb provided the deceased and his wife with all the amenities they would have enjoyed in life. Food and drink were plentiful as was entertainment. Yet, few personal belongings were found among the numerous burial goods arranged within the confinement of the tomb chamber. They included no more than a pair of simple bronze earrings and a bronze mirror wrapped in silk. These two items seem to have been intended to satisfy the personal vanity of the deceased wife or husband; maybe they were intended for both. It therefore seems strange that two additional mirrors accompanied the deceased couple, not placed among burial goods but on the ceilings above the front room and tomb chamber.

These two ceiling mirrors had cosmological as well as Buddhist associations and for this reason were deployed in a unique position. At first glance, mirrors appear to be simple artifacts, their formal design having been adapted to their function as reflectors or looking glasses. Yet the mirror designs and mirror inscriptions that first appeared in the mid Western Han period illustrate that these objects were invested with remarkable qualities and powers. They were believed to be able to avert inauspicious influences and reveal the true shape of things. Analogies with light were drawn on their strong reflective qualities, as were comparisons with the sun and the moon. According to a literary reference, suspended mirrors were even believed to bring light into the darkness of a tomb.⁶⁸ In the context of Zhang Wenzao's tomb, associations with principal heavenly bodies were reinforced by depictions of the other heavenly bodies, the twenty-eight constellations and the sun.

The same illuminating qualities may have also have contributed to their ties with Buddhist practices. As in tombs, ceiling mirrors were employed in contemporary Northern Song relic deposits. By showing that mirrors were incorporated into ceiling canopies placed above principal Buddhist figures or relics during the Tang period in China, and during the Nara and Heian periods in Japan, it was argued that they were chosen for these contexts or positions for their magical illuminating powers, their light emanating and reinforcing Buddha's enlightened state of mind. Again, it is the subject matter of the lotus surrounding the mirror that provides clues to the mirror's associations with Buddhism.

Finally, scholars have argued for a syncretic nature of the Xuanhua tombs whose occupants followed Buddhist practices and rituals. The ways in which the ceiling mirrors in the tomb of Zhang Wenzao were used may be taken as further proof of the syncretic burial practices in this tomb that incorporated both established Han-Chinese customs as well as Buddhist rituals.

NOTES

1. *Wenwu*, no. 9 (1996), 14–46. Compare also *Xuanhua Liaomu* [Liao tombs at Xuanhua] (Beijing: Wenwu chubanshe, 2001), 1: 69–125.

2. Between 1974 and 1993, archaeologists unearthed nine large chamber tombs in the vicinity of Xiabali village, Xuanhua, Hebei. Including the tomb of Zhang Wenzao, these tombs belonged to members of the Zhang family who had been buried there between 1093 and 1143. See *Xuanhua Liaomu*, vols. 1 and 2.

3. *Liao shi* [History of the Liao], 5 vols. (Beijing: Zhonghua shuju, 1974); *Juan*, 41: 510. See Herbert Franke and Denis Twitchett, eds., *Alien Regimes and Border States, 907–1368*, vol. 6 of *The Cambridge History of China* (Cambridge: Cambridge University Press, 1994), 43–153.

4. Dieter Kuhn, “Decoding Tombs of the Song Elite,” in Dieter Kuhn, ed., *Burial in Song China* (Heidelberg: Edition Forum, 1994), 85–103.

5. Two studies in particular have focused on investigating the Buddhist elements in the interior decoration and contents of the Xuanhua tombs of the Zhang family. Tasen Sen traced the Buddhist elements of the ceiling paintings in the Zhang family tombs, linking them to specific star mandalas associated with Esoteric Buddhism. Compare Tansen Sen, “Astronomical Tomb Paintings from Xuanhua: Mandalas?” *Ars Orientalis* 29 (1999), 29–54. In “The Use of Texts in Liao Tomb Burials and Relic Deposits,” an as yet unpublished paper given at Princeton University, 13 May 2002, Hsueh-man Shen established a context for the Buddhist incantations (*dharanis*) written on the walls and the sides of the wooden coffins found in some of the Zhang family tombs.

6. The excavation report contains conflicting information on the numbering of one of the four mirrors in the tomb of Zhang Wenzao. Compare *Wenwu*, no. 9 (1996), 42; 36, figs. 33.1–4; 38–39, figs. 42–43 and 49–50. According to the tomb plan, one mirror (M7:69) was found among other burial goods on the floor, another in the center of the table (M7:14), and a third (M7:86) on the edge of the table. A second plan of the inside of the coffin identifies

the fourth mirror (M7:84 or 86) on one of the bodies.

7. Two important studies that have examined the relationship between mirror inscriptions and the object’s formal properties are Suzanne E. Cahill’s “The Word Made Bronze: Inscriptions on Medieval Chinese Bronze Mirrors,” *Archives of Asian Art* 39 (1986), 62–70, and a more recent study by Ken E. Brashier, “Longevity like Metal and Stone: The Role of the Mirror in Han Burials,” *T’oung Pao* 81 (1995), 201–29.

8. The idea of a tomb as an underground residence can be traced back as early as the fifth century BC. The tomb of the Marquis Yi of Zeng (c. 433 BC) at Leigudun, Suizhou, Hubei, is believed to be the earliest example. His tomb comprised several chambers, each with a different function indicated by the burial objects placed inside them. The practice of multi-chambered tombs was taken over and developed by the Han. Two prominent early examples include the tombs of the Marquess of Dai at Mawangdui, Hunan, dated to the early second century BC, and the tomb of Prince Liu Sheng (d. 113 BC) at Mancheng, Hebei. Compare Lothar von Falkenhausen, “Sources of Taoism: Reflections on Archaeological Indicators of Religious Change in Eastern Zhou China,” *Taoist Resources* 5 (1994), 1–12; Wu Hung, *Monumentality in Early Chinese Art* (Stanford: Stanford University Press, 1995), 121–42; and Jessica Rawson, “The Eternal Palaces of the Western Han: A New View of the Universe,” *Artibus Asiae* 59 (2000), 5–58.

9. *Wenwu*, no. 9 (1996), 30, fig. 13. Several recent studies have examined the architectural structure and painted interiors of the Zhang family tombs. Compare Danielle Elisseeff, “A propos d’un cimetière Liao: les belles dames de Xiabali,” *Arts Asiatiques* 49 (1994), 70–81; Dieter Kuhn, *Die Kunst des Grabbaus: Kuppelgräber der Liao-Zeit (907–1125)*, 181–97; and Nancy Shatzman Steinhardt, *Liao Architecture* (Honolulu: University of Hawaii Press, 1997), 342–47. For studies on the ceiling paintings see, for example, Zheng Shaozong, “Liaodai caihua xingtushi woguo tianwenshishang de zhongyao faxian” [A Liao dynasty painted star map, an important find in the history of

Chinese astronomy], *Wenwu*, no. 8 (1975), 40–44; Xia Nai, “Cong Xuanhua Liaomu de xingtulu ershiba xiu he huangdiao shier gong” [On the twenty-eight stars and the twelve signs of the zodiac in the painted star map of the Liao tombs at Xuanhua], *Kaogu Xuebao*, no. 2 (1976), 35–58; Steinhardt, *Liao Architecture*, 343–47; and Tansen Sen, “Astronomical Tomb Paintings from Xuanhua: Mandalas?” 29–54.

10. Compare *Xuanhua Liaomu bishua* [Wall paintings in the Liao tombs at Xuanhua] (Beijing: Wenwu chubanshe, 2001), pl. 22 and 25.

11. Compare *ibid.*, pl. 30–34.

12. Hsueh-man Shen has proposed that the burial furnishings in some of the Zhang family tombs may have related to ritual activities dedicated to the deceased that took place before the tomb was sealed. Hsueh-man Shen, “The Use of Texts in Liao Tomb Burials and Relic Deposits,” forthcoming.

13. In the nearby tomb of Zhang Kuangzheng (d. 1058), a similar set-up including a wooden mirror stand with a bronze mirror was discovered. Compare *Xuanhua Liaomu*, 1: 8–68, figs. 30, 36, and 46:3. In addition, a scene painted on the eastern wall of the tomb chamber depicts two female attendants. One of them is holding a mirror, the other a bowl and a cloth. *Ibid.*, 2: pl. 14. Wooden mirror stands that had originally supported a mirror were also found in the tomb of Zhang Shiben (d. 1089). See *ibid.*, 1: 126–61, figs. 114, 120, and 125:2.

14. Murals incorporating mirror scenes appear mostly in large brick tombs of the type built in parts of northern Henan, in eastern Shanxi and southern Hebei provinces during the later part of the eleventh and early part of the twelfth century. See Dieter Kuhn, “Decoding Tombs of the Song Elite,” 11–159, particularly 92–100. For painted representations of mirrors in Northern Song tombs excavated in Henan and Shanxi compare, for example, *Wenwu*, no. 10 (1994), 4–9, cover; *Wenwu*, no. 5 (1996), 1–16, pl. 2.2; and *Wenwu*, no. 12 (1998), 26–32, pl. 4.2.

15. *Baisha Songmu* [Song tombs at Baisha] (Beijing: Wenwu chubanshe, 1957), pl. 27.

16. Only a few of the total number of mirrors excavated in China have been published. For examples of Liao and Song mirrors, compare, for instance, Liu Shujuan, *Liaodai tongjing yanjiu* [A study of Liao dynasty bronze mirrors] (Shenyang: Shenyang chubanshe, 1997); *Lushun bowuguan cang tongjing* [Bronze mirrors in the Lushun Museum] (Beijing: Wenwu chubanshe, 1997), pl. 129–53; and *Lidai tongjing wenshi* [Decorative patterns on bronze mirrors through the dynasties] (Shijiazhuang: Hebei meishu chubanshe, 1996), pl. 164–226.

17. Karl A. Wittfogel and Feng Chia-sheng, *History of Chinese Society: Liao (907–1125)* (Philadelphia/New York: Translations of the American Philosophical Society, 1949), 170, 310–20. For a discussion of the economic value of bronze during the Song, see Jerome Ch'en, “Sung Bronzes—An Economic Analysis,” *Bulletin of the School of Oriental and African Studies* 28 (1965), 613–26.

18. Several scholars have examined this particular mirror type, whose inscriptions reflect the commercialization of the mirror-casting industry. See Wu Shuicun, *Jiujiang chutu tongjing* [Bronze mirrors excavated in Jiujiang] (Beijing: Wenwu chubanshe, 1993), 12–13; Kong Xiangxing and Liu Yiman, *Zhongguo gudai tongjing* [Ancient bronze mirrors of China] (Taipei: Yishu tushu gongsi, 1994), 144–45. Also Rose Kerr, “Song and Yuan Bronzes,” in *Transactions of the Oriental Ceramic Society* 54 (1989–90), 18–19, and Rose Kerr, *Later Chinese Bronzes* (London: Bamboo Publishing Ltd. in association with the Victoria and Albert Museum, 1990), 96.

19. For examples compare *Lushun bowuguan cang tongjing*, pl. 139 and 144. In her study on Liao mirrors, Liu Shujuan noted that some mirrors found in Liao tombs that were identified as Song may have been made by craftsmen from beyond the borders who worked within the Liao empire. Liu Shujuan, *Liaodai tongjing yanjiu*, 183–85.

20. *Kaogu Xuebao*, no. 3 (1956), 1–26. See also *Wenwu*, no. 12 (1980), 17–29.

21. *Wenwu*, no. 8 (1973), 2–13, fig. 15, left and 33, top. In this tomb, which belonged to a member of the royal Xiao clan, a second scene featuring a mirror is painted on the north wall of the corridor leading into the tomb. The painting shows two women, the younger woman on the left looking into a mirror held by an older woman who is facing her. Linda Cooke

Johnson has explained this scene as part of a marriage ceremony performed for an imperial Liao princess. She refers to a Liao custom in which a bride walked toward her intended husband while a married woman holding a mirror walked backward in front of her. According to the *Liao shi*, this practice was performed during marriage ceremonies of Liao nobility. Linda Cooke Johnson, “The Wedding Ceremony for an Imperial Liao Princess: Wall Paintings from a Liao Dynasty Tomb in Jilin,” *Artibus Asiae* 49 (1985), 107–36, particularly 127 n. 54.

22. Compare *Wenwu*, no. 1 (1996), 4–32, figs. 30–32. A Tang lion-and-grapevine mirror was found inside a lacquer box together with combs and silver hairpins in the tomb of an unknown individual in Yemaotai, Faku District, Liaoning province. See *Wenwu*, no. 12 (1975), 26–36, figs. 8 and 14.

23. Numerous boxes and several mirror stands have been found in Northern and Southern Song tombs. For examples of mirror boxes made in lacquer or even silver, see *Wenwu*, no. 3 (1990), 19–23, figs. 5 and 9; *Wenwu*, no. 3 (1991), 26–38, 70, fig. 3; *Wenwu*, no. 10 (1995), 22–33, 21, pl. 3.1; *Kaogu*, no. 5 (1986), 78–80, figs. 5 and 9; *Wenwu*, no. 12 (1982), 28–35, figs. 15 and 18. For two examples of mirror boxes unearthed from Song tombs, see *Wenwu*, no. 7 (1977), 1–15, fig. 38, and *Wenwu*, no. 8 (1983), 23, fig. 43.

24. The appearance of ceiling paintings depicting the heavens in the Western Han period coincided with major changes in burial practices, which, in turn, were linked to the formation of a complete view of the universe in the course of the Han. John Major has examined and discussed aspects of Han cosmology, in particular the underlying geometrical structure. John Major, “The Five Phases, Magic Squares, and Schematic Cosmography,” in Henry Rosemont Jr., *Explorations in Early Chinese Cosmology* (Chicago: Journal of the American Academy of Religion, 1984), 133–66. Also John Major, *Heaven and Earth in Early Han Thought: Chapters Three, Four, and Five of the Huainanzi* (New York: State University of New York Press, 1993). Jessica Rawson has traced the implications of cosmology on burial culture. Compare Jessica Rawson, “Eternal Palaces of the Western Han: A New View of the Universe,” 5–58, and Jessica Rawson, “Cosmological Systems as Sources of Art, Ornament, and Design,” 133–89, *Bulletin of the Museum of Far Eastern Antiquities* 72 (2000).

25. This concept was based on a theory known as *gaitian*, which conceived the heavens as a dome or canopy that covered the square earth. See Joseph Needham, *Mathematics and the Science of the Heavens and the Earth*, vol. 3 of *Science and Civilisation in China* (Cambridge: Cambridge University Press, 1959), 211–13.
26. Many, though not all tombs of the late Western and Eastern Han, were decorated with depictions of the heavens. A number of tombs in which the vaulted or gabled ceilings of the tomb chamber were painted with depictions of the sky have been excavated around Luoyang in Henan province. Compare *Luoyang Hanmu bishua* [Wall paintings in Han tombs at Luoyang] (Beijing: Wenwu chubanshe, 1996), 61–120. Donald Harper, “Warring States Natural Philosophy and Occult Thought,” in Michael Loewe and Edward Shaughnessy, eds., *The Cambridge History of Ancient China: From the Origins of Civilization to 222 B.C.* (Cambridge: Cambridge University Press, 1999), 813–84.
27. Compare *Xi'an Jiaotong daxue Xi Han bishua mu* [A Western Han dynasty tomb with wall paintings at Xi'an Jiaotong University] (Xi'an: Xi'an Jiaotong daxue chubanshe, 1991), pl. 15–18.
28. Compare *Wenwu*, no. 10 (1983), 1–23, pl. 4.2. For the ceiling painting in the tomb of Wang Chuzhi, compare *Wudai Wang Chuzhi mu* [The tomb of Wang Chuzhi of the Five Dynasties period] (Beijing: Wenwu chubanshe, 1998), fig. 8. Qian Kuan was the father of the first ruler of the Wu Yue Kingdom (907–978) of the Five Dynasties period. See *Wenwu*, no. 12 (1979), 18–22, fig. 5. Two other features that were often painted on tomb walls, engraved on epitaph covers, or placed as figures around the tomb chamber include the four directional creatures and the twelve animals of the zodiac. Like the heavens, they were an integral part of the complex geometric framework that oriented the universe in terms of space and time. See Zhao Chao, “Shi qionglongding mushi yu fudouxing muzhi, jiantan gudai muzang zhong ‘xiang tian di’ de sixiang” [On diviner’s boards, domed tomb ceilings, and pyramid-shaped epitaph coves, discussing the concept of ‘patterning after heaven and earth’ in ancient tombs], *Wenwu*, no. 5 (1999), 72–84. See Judy Chungwa Ho, “The Calendrical Animals in Tang Tombs,” in George Kuwayama, ed., *Ancient Chinese Mortuary Traditions: Papers on Chinese Ceramic Funerary Sculptures* (Los Angeles: University of Hawaii Press, 1991), 60–83. In two later tombs of the Zhang family, the calendrical animals were incorporated into the ceiling paintings. Compare *Wenwu*, no. 10 (1990), 1–19, fig. 17; and *Wenwu*, no. 2 (1995), 4–28, figs. 37 and 43.
29. Dieter Kuhn, “*Liao Architecture: Qidan Innovations and Han-Chinese Traditions?*” *T'oung Pao* 86, no. 4/5 (2000), 346 n.
30. Kuhn refers to star maps of the late eleventh century. However, an earlier star map probably of Tang date was discovered early in the twentieth century in Dunhuang in Gansu province. See Needham, *Mathematics and the Science of the Heavens and the Earth*, figs. 99 and 100. Star maps were the result of an intense observation of the sky and the movements of its principal bodies. The desire to understand celestial and meteorological phenomena such as meteorites and lunar and solar eclipses resulted in a scientific mapping of the sky whose order was believed to be the counterpart of the earth.
31. See note 29 for details.
32. TLV-pattern mirrors have been discussed extensively by scholars both in China and the West. See Schuyler Cammann, “The ‘TLV’ pattern on Cosmic Mirrors of the Han Dynasty,” *Journal of Oriental Studies* 68 (1948), 59–167; also Michael Loewe, *Ways to Paradise: The Chinese Quest for Immortality* (London: George Allen and Unwin, 1979), 60–85.
33. These mirrors were known as mirrors decorated with one hundred bosses (*bairijing*). The Carter collection holds a particularly fine example; see Ju-hsi Chou, *Circles of Reflection: The Carter Collection of Chinese Bronze Mirrors* (Cleveland: Cleveland Museum of Art, 2000), 16, pl. 2. For a discussion of this mirror type, see Anneliese Bulling, *The Decoration of Mirrors of the Han Period: A Chronology, Supplement*, *Artibus Asiae* 20 (1960), 32–35.
34. This analogy is expressed in a phrase that is sometimes incorporated into mirror inscriptions of the Han, namely that “the mirror’s brilliance is patterned after the sun and the moon” (*guang xiang ri yue*). Compare, for example, *Echeng Han Sanguo Liuchao tongjing* [Bronze mirrors of Han, Three Kingdoms, and Six Dynasties excavated at Echeng] (Beijing: Wenwu chubanshe, 1987), pl. 1; and *Lushun bowuguan cang tongjing*, nos. 32–35. Associations between mirrors and light may have evolved out of investigations into the optical qualities of a related bronze object known as a *yangsui* (burning mirror). Smaller than mirrors, without decoration and with a distinctively concave reflective surface, the light of the sun could be focused in the center of the object’s concave surface, thus igniting a flame. Another metal object known as *fangzhu* was used to collect dew, believed to be the essence of the moon. See Joseph Needham, *Physics*, part 1 of *Physics and Physical Technology*, vol. 4 of *Science and Civilisation in China* (Cambridge: Cambridge University Press, 1962), 88 n. b.
35. Compare *Jiujiang chutu tongjing*, pl. 91; also *Luoyang chutu tongjing*, pl. 69 and 72. For a Tang cosmological mirror in the Carter collection, see Chou, *Circles of Reflection*, 60, pl. 46. See also Edward Schafer, “A T'ang Taoist Mirror,” *Early China* 4 (1978), 56–59.
36. John D. Henderson, *The Development and Decline of Chinese Cosmology* (New York: Columbia University Press, 1984), 119–36. Michael D. Freeman discusses the writings of Shao Yong in “‘From Adept to Worthy’: The Philosophical Career of Shao Yong,” *Journal of the American Oriental Society* 102 (1982), 477–91.
37. To Han and later cosmologists, the broken and unbroken lines of the trigrams and hexagrams of the *Ijīng* were binary oppositions. The building up of the trigrams and hexagrams had a numerical structure, which was correlated to the successive stages in the evolving and changing cosmos and its forces. A. C. Graham, *Disputers of the Tao: Philosophical Argument in Ancient China* (LaSalle, Ill.: Open Court Publishing Company, 1989), 358–70.
38. Translated in Needham, *Mathematics and the Science of the Heavens and the Earth*, pl. 22, fig. 93. The mirror is identical to the excavated piece from Hebei. See *Lidai tongjing wenshi*, fig. 198. For another example compare *Lushun bowuguan*

cang tongjing, 153. Further examples are discussed by Ho, “Calendrical Animals in Tang Tombs,” 68–69.

39. *Wenwu*, no. 8 (1975), 66–70, fig. 4.

40. The role of the eight trigrams, the driving force behind the evolving and ever-changing cosmos, is described on a Tang mirror in the Carter collection, where they are incorporated into the mirror design with the sun and the moon in a subordinate position. The accompanying inscription notes that “in the middle are the eight trigrams, making clear [the forces of] yin and yang.” See Chou, *Circles of Reflection*, 75, no. 69.

41. Compare *Lin'an xian Tang Shuiqiu shi mu fajue baogao* [Report on the excavation of the tomb of Mme Shuiqiu of the Tang dynasty in Lin'an prefecture] (Beijing: Wenwu chubanshe, 1981), 94–104, pl. 8.2–3, and *Wudai Wang Chuzhi mu*, 20, fig. 8.

42. In her study on mirrors of the Liao period, Liu Shujuan noted this unusual feature, which has received little attention. Compare Liu Shujuan, *Liaodai tongjing yanjiu*, 8–22.

43. *Liao Chenguo gongzhu mu*, 49, fig. 29 and pl. 11: 3.

44. *Neimenggu wenwu kaogu wenji* [Essays on archaeology and cultural relics in Inner Mongolia] (Beijing: Zhongguo dabake quanshu chubanshe, 1997), 2: 609–30.

45. *Wenwu*, no. 1 (1996), 4–32. Also *Kaogu*, no. 11 (1984), 990–1002, figs. 3 and 6. *Wenwu*, no. 7 (1980), 23–27.

46. *Wenwu*, no. 12 (1992), 37–51.

47. *Wenwu*, no. 7 (1992), 1–28, pl. 1.1–3.

48. *Wenwu*, no. 3 (1997), 35–53, fig. 3.

49. Ibid., figs. 3, 12, 13, 40.

50. *Wenwu*, no. 8 (1972), 39–48; and *Wenwu*, no. 6 (1991), 38–47.

51. For a discussion on early depictions of the lotus, see Marylin Martin Rhie, *Later Han, Three Kingdoms and Western Chin in China and Bactria to Shan-shan in Central Asia*, vol. 1 of *Early Buddhist Art of China and Central Asia* (Leiden: E. J. Brill, 1999), 64–67.

52. *Kaogu Xuebao*, no. 2 (1974), 87–109, pl. 2:3. Other examples were found in tombs at Xingyang Xian, Henan, and in Mi Xian,

Hebei. Compare *Wenwu*, no. 3 (1996), 18–27, fig. 16, and *Mi Xian Dahuting Hanmu* (Beijing: Wenwu chubanshe, 1993), pl. 6 and 9.

53. Uehara Kazu, “Koguri kaiga no Nihon e oyo boshita eikyō” [The influence of Koguryo paintings on Japan], *Bukkyō Geijutsu* 215 (1994), 75–103. Such a ceiling is described in the *Western Metropolis Rhapsody* by Zhang Heng (78–139 AD), as Dieter Kuhn notes, see Kuhn, “Liao Architecture,” 340–42.

54. Uehara Kazu, “Koguri kaiga no Nihon e oyo boshita eikyō,” 83.

55. *Wenwu*, no. 6 (1979), 1–17, fig. 10. See also *Jiuquan Shiliuguo mu bihua* [Wall paintings of the Sixteen Kingdoms tombs in Jiuquan] (Beijing: Wenwu chubanshe, 1989), pl. 1–3.

56. For a number of early examples at Dunhuang dating to the Northern and Western Wei periods, compare *Zhongguo shiku: Dunhuang Mogao* [Chinese caves: the Mogao caves at Dunhuang], vol. 1 (Tokyo: Wenwu chubanshe, 1981), pl. 78, 144, 170, and vol. 2 (Tokyo: Wenwu chubanshe, 1984), pls. 22, 44.

57. See Anne Nishimura Morse and Samuel Crowell Morse, *Object as Insight: Japanese Buddhist Art and Ritual* (Katonah: Katonah Museum of Art, 1996), 26–31.

58. For a brief introduction on the history of the Tōdai-ji and the Hokke-dō, see Yukata Mino, ed., *The Great Eastern Temple: Treasures of Japanese Buddhist Art from Tōdai-ji* (Chicago: Art Institute of Chicago in association with Indiana University Press, 1986), 33–47. See also the view of the assemblage of seven figures underneath the lotus canopy (25, fig. 9).

59. Mino, *Great Eastern Temple*, 155–56, nos. 63, 64. Adele Schlombs, ed., *Im Licht des Großen Buddha* (Cologne: Museum für Ostasiatische Kunst der Stadt Köln, 1995), 128–29, pl. 94. In Japanese Buddhist temples and halls two particular types of mirrors known as *kakebotoke* or *kyōzo* were suspended along columns or placed on stands in front of a devotional image. See Sugiyama Hiroshi, “Kodai no kagami” [Ancient mirrors], *Nihon no bijutsu* 393 (1999), 70–73.

60. *Wenwu*, no. 10 (1988), 1–26. The mirrors are not recorded in the excavation report. They are published and described

in a small catalogue of the most precious objects from the deposits. Compare *Famenzi digong zhenbao* [Treasures from the underground relic deposit of the Famen Temple] (Xi'an: Shaanxi renmin meishu chubanshe, 1989), pl. 58.

61. Compare the lotus figures painted in the apex of two domed ceilings in a pair of large tombs excavated near Chifeng in Inner Mongolia; *Wenwu*, no. 1 (1998), 73–94, figs. 5 and 39. In another Liao tomb from Liaoning province, the wooden lining of a burial chamber showed a lotus painted in the center of the truncated ceiling; *Wenwu*, no. 11 (2000), 63–71, fig. 17. For an example discovered in a Northern Song tomb near Zhengzhou, Henan, see *Wenwu*, no. 10 (1994), 4–9. The mirror and lotus were recovered from a tomb near Beijing. See *Wenwu*, no. 7 (1980), 23–27, pl. 6.

62. Tansen Sen, “Astronomical Tomb Paintings from Xuanhua: Mandalas?” 29–54. Also Steinhhardt, *Liao Architecture*, 345–47. More recently, Hsueh-man Shen has contributed further proof of the strong Buddhist influence in the decoration and furnishings of the Zhang family tombs. Hsueh-man Shen, “The Use of Texts in Liao Tomb Burials and Relic Deposits.”

63. Compare *Wenwu*, no. 9 (1996), 14–46, pl. 9.3, and figs. 14–19.

64. Compare *Xuanhua Liaomu bihua*, pl. 22–24, 29, and 33. According to Hsueh-man Shen, the two paintings on the lintels represent the boundaries between the death and rebirth into the Pure Land. Hsueh-man Shen, “Use of Texts in Liao Tomb Burials and Relic Deposits.”

65. See Tansen Sen, “Astronomical Tomb Paintings from Xuanhua: Mandalas?” 42–48. See also *Exhibition of the National Treasure Horyū-ji Temple* (Tokyo: National Palace Museum Publications, 1994), pl. 117–18.

66. Hsueh-man Shen, “Use of Texts in Liao Tomb Burials and Relic Deposits.”

67. Paul Demiéville extensively studied the mirror image in Buddhism and its relations with Daoism and other belief systems. See Paul Demiéville, “The Mirror of the Mind,” trans. Neil Donner, in Paul N. Gregory, ed., *Sudden and Gradual: Approaches to Enlightenment in Chinese Thought* (LaSalle, Ill.: Open Court Publishing, 1987), 13–40.

68. A Song reference shows that such associations of mirrors and light persisted into later periods. It notes that “when the current generation places the deceased into the coffin, they take a mirror and suspend it from the coffin lid in order to illuminate the dead body; it is frequently said that this will bring light and break the darkness (of the tomb).” Ken Brashier has referred to and translated this comment by the scholar Zhou Mi (1232–1308) in his *Guixin zazhi* [Guixin miscellany]. See Ken Brashier, “Longevity like Metal and Stone: The Role of Mirrors in Han Burials,” *T'oung Pao* 81 (1995), 201–29.