The Aesthetic of Brightness in Han Mirror Inscriptions

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This article analyzes inscriptions cast on bronze mirrors of the Han dynasty (202 BCE–220 CE) to trace how the material property of brightness became emphatically aestheticized through an expressive rhetoric of radiance and brilliance, illumination and reflection. It argues that specular brightness as a defining feature of Han mirrors was exploited by artisans to attract potential buyers. In contrast to erudite philosophers who exclusively used the logograph *ming* 明 to modify the literary mirror in classical texts, artisans promoted their products by featuring terms such as *guang* 光, *zhao* 昭, *hui* 輝, *yao* 耀, *qing* 清, and *jiao* 皎 in rhythmic proses of various lengths. Examining how artisans advertised their high-tin bronzes as embodiments of solar and lunar light, the study shows that specular brilliance was linked to a range of cosmetic, moral, and religious powers, from illuminating the individual and the physical world to revealing the invisible world, whether of human emotions or demons. The article further argues that the inscribed verses, while often formulaic and clichéd, were neither mere decorations nor generic blessings. In fact, they meaningfully structured and communicated a particular aesthetic appreciation shared by both Han artisans and users. This well-developed semantic fascination with specular brightness thus marks these metal discs as a distinctive genre of the decorative arts in early imperial China.

On a hot summer day of the fifth lunar month, year two of Yongshi (15 BCE), artisan Feng 豐 from Loushang 扇上 cast a bronze mirror, boasting in the inscription that he had "made this pure and bright mirror that is as fine as the sun and moon" 作精明鏡兮，好如日月.[1] Inscribed on a TLV mirror (Fig. 1) coming from a multi-chambered brick tomb of the Xin Interregnum (9–23 CE) in Luoyang 洛陽, this poetic prose extols the brilliant quality of the circular metallic object for its congruence with the two brightest celestial orbs. Comparable expressions eulogizing this luminous characteristic repeatedly occurred on various types of mirrors in almost every corner of the vast empire during the Han dynasty (202 BCE–220 CE).

The idea that bronze mirrors were praised for their brightness, a precious and lustrous rarity, is evident in some of the transmitted texts composed and compiled during the Warring States period (475–221 BCE) and subsequent Qin and Han dynasties (221 BCE–220 CE). As Paula Varsano has noted, *ming* 明 (literally, "bright") is the most common modifier of the word "mirror" in those philosophical texts.[2] This seemingly simple and straightforward term, according to Henri Maspéro, connoted a rich variety of interconnected meanings ranging

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1. Here, the character *jing* 精 is a phonetic loan word for *qing* 清. Luoyang dier wenwu gongzuodui 洛陽第二文物工作隊, "Luoyang shi Wunüzhong 267 hao Xinmang mu fajue jianbao" 洛陽市五女冢267號新莽墓發掘簡報, *Wenwu* 1996.7: 42–53. Unless otherwise noted, all translations are mine.

2. Varsano, "Disappearing Objects/Elusive Subjects: Writing Mirrors in Early and Medieval China," *Represen-*

Fig. 1. Ink rubbing of TLV mirror, 15 BCE, Wunüzhong, tomb no. 267. Courtesy of Luoyang Municipal Institute of Archaeology, Luoyang. After *Zhongguo jinian tongjing: Liang-Han zhi Liuchao*, pl. 1

from "light" to "bright," "brilliant," "intelligent," and "sacred."[3] The polysemy of the word *ming* often led to a slippery usage that conflated "'light,' 'visual perception,' and 'perceptiveness,' but also the ideal of 'clarity'," as revealed by Michael Nylan.[4] While these scholars have taken note of the semantic denotations and philosophical connotations of *ming* in relation to the literary mirror, they have not related early textual articulations to the immense corpus of Han mirror inscriptions numbering in tens of thousands. These inscriptional texts, I consider, articulate the discourse about "the aesthetic of brightness" as an object, an experience, a judgment, and a kind of value. Departing from a purely textualist approach, my paper foregrounds the importance of the visual and the material, exploring the role played by the actual specular discs in shaping the emerging aesthetic practice during early imperial China, when the mirror industry expanded to an unprecedented degree.[5]

Similar to its usage in the transmitted literature, the term *ming* as a modifier frequently occurred in Han mirror inscriptions. In contrast to the classical philosophers who modified the mirror exclusively with the use of *ming*, the undereducated artisans described and praised the reflective shininess of their products by employing a variety of terms such as *guang* 光,

tations 124.1 (2013): 98–102. Her pioneering article focuses on the literary mirror in early and medieval China but does not address Han mirror inscriptions.

3. Maspéro, "Le mot *ming* 明," *Journal asiatique* 220.3 (1933): 249–96.

4. Nylan, "Beliefs about Seeing: Optics and Moral Technologies in Early China," *Asia Major* 21.1 (2008): 89–132, esp. 108.

5. For a general overview of Han mirrors, refer to Kong Xiangxing 孔祥星 and Liu Yiman 劉一曼, *Zhongguo gudai tongjing* 中國古代銅鏡 (Beijing: Wenwu chubanshe, 1984), 61. For a rough estimate of the valuation and affordability of the bronze mirrors, see Yanlong Guo, "The Monetary Value of Bronze Mirrors in the Han Dynasty," *T'oung Pao* 104.1–2 (2018): 66–115.

zhao 昭, *hui* 輝, *yao* 耀, *qing* 清, and *jiao* 皎.[6] These words appear to be largely synonymous with one another, and each of them also connotes a meaning with nuanced differences. As my paper demonstrates, the conception and perception of specular brightness in the minds of artisans and users, whose quotidian enjoyment of specular radiance is articulated and documented primarily through epigraphic evidence, resonate with but do not always conform to the philosophical discourse of the "bright mirror" in the transmitted texts.

Han mirror inscriptions have been scrupulously documented and transcribed from the Qing dynasty onward due to the constant and vibrant antiquarian interest that has resulted in a number of foundational catalogs.[7] The first, and by far the most systematic and influential study in English is Bernhard Karlgren's "Early Chinese Mirror Inscriptions" published in 1934.[8] In this lengthy article, Karlgren laboriously translated 257 items of Han inscriptions from existing Chinese and Japanese antiquarian catalogs as well as newly established European collections, which, according to him, included all the known examples at that time. Karlgren's milestone research provides a solid foundation for this paper, which, of course, has a much greater number of sources at its disposal after some eighty years. The practice of documentation and identification has prospered in congruence with the unprecedented new archaeological discoveries of Han mirrors in the People's Republic of China after 1949. Recent scholarly endeavors, particularly those undertaken by Lin Suqing 林素清, Peng Yu 鵬宇, Hayashi Hiromi 林裕己, and the research group "Chūgoku kokyō no kenkyū han" 中國古鏡の研究班, have led to a comprehensive and well-organized database of Han inscriptions annotated in Chinese or Japanese.[9] The remarkable repertoire of Han mirror

6. For the discussion on the low literacy of Han artisans, refer to Anthony J. Barbieri-Low, *Artisans in Early Imperial China* (Seattle: Univ. of Washington Press, 2007), 65; idem, "Carving Out a Living: Stone-Monument Artisans during the Eastern Han Dynasty," in *Recarving China's Past: Art, Architecture, and Archaeology of the "Wu Family Shrines"*, ed. Cary Liu, Michael Nylan, and Anthony Barbieri-Low (Princeton: Princeton Univ. Art Museum, 2005), 485–511, esp. 495–96. On Han commoners' levels of literacy, see Hsing I-tien 邢義田, "Qin-Han pingmin de duxie nengli" 秦漢平民的讀寫能力, in *Gudai shumin shehui* 古代庶民社會, ed. Hsing I-tien and Liu Zenggui 劉增貴 (Taipei: Academia Sinica, 2013), 241–88; Tomiya Itaru 冨谷至, "Shumin de shizi nengli yu wenzi chuanda de xiaoyong" 庶民的識字能力與文字傳達的效用, in *Gudai shumin shehui*, 289–98; Robin D. S. Yates, "Soldiers, Scribes, and Women: Literacy among the Lower Orders in Early China," in *Writing and Literacy in Early China*, ed. Feng Li and David Prager Branner (Seattle: Univ. of Washington Press, 2011), 339–69.

7. Liang Shizheng 梁詩正 et al., *Xi Qing gu jian* 西清古鑒 (40 j.), j. 39–40 (Beijing: Qing neifu kanben, 1751); Liang Shizheng et al., *Ningshou jiangu* 寧壽鑑古 (16 j.), j. 15–16 (Shanghai: Hanfenlou, 1913); Bi Yuan 畢沅 and Ruan Yuan 阮元, *Shanzuo jinshizhi* 山左金石志 (24 j.), j. 5 (Yizheng: Ruan shi xiaolang huanxian guan, 1797); Chen Jing 陳經, *Qiugu jingshe jinshi tu* 求古精捨金石圖 (4 j.), j. 2 (n.p.: Shuojianlou, 1817); Feng Yunpeng 馮雲鵬 and Feng Yunyuan 馮雲鵷, *Jin shi suo: Jin suo* 金石索：金索 (12 j.), j. 6 (Zixian: Suiguzhai, 1821); Qian Dian 錢坫, *Huanhua baishixuan jingming jilu* 浣花拜石軒鏡銘集錄 (2 j.) (n.p.: Chen Naiqian, 1921); Zhang Tingji 張廷濟, *Qingyige suocang guqiwu wen* 清儀閣所藏古器物文 (10 j.), j. 4 (Shanghai: Shangwu yinshuguan, 1925); Liu Xinyuan 劉心源, *Qigushi jijin wenshu* 奇觚室吉金文述 (20 j.), j. 15 (n.p: n.p, 1902); Luo Zhenyu 羅振玉, *Gujing tulu* 古鏡圖錄 (3 j.) (Shangyu: Luo shi, 1916); Liang Tingnan 梁廷枏, *Tenghuating jingpu* 藤花亭鏡譜 (8 j.) (Shunde: Long shi zhonghe yuan, 1934); Xu Naichang 徐乃昌, *Xiaotan luanshi jingying* 小檀欒室鏡影 (6 j.) (n.p: n.p., 1928); Liu Tizhi 劉體智, *Shanzhai jijin lu: Jing lu* 善齋吉金錄：鏡錄 (4 j.) (n.p.: Lujiang Liu Shi, 1935); Chen Jieqi 陳介祺, *Fuzhai cang jing* 簠齋藏鏡 (Shanghai: Yinyinlu, 1925); Liu Tizhi, *Xiaojiaojingge jinwen taben* 小校經閣金文拓本 (Shanghai: Zhongguo shudian, 1935); Luo Zhenyu 羅振玉, "Han liangjing yilai jingming jilu" 漢兩京以來鏡銘集錄 and "Jing hua" 鏡話, in *Liao ju za zhu* 遼居雜著 (Lüshun?: n.p, 1929).

8. "Early Chinese Mirror Inscriptions," *Bulletin of the Museum of Far Eastern Antiquities* 6 (1934): 9–72.

9. Lin Suqing, "Liang-Han jingming huibian" 兩漢鏡銘彙編, in *Guwenzi xue lunwenji* 古文字學論文集 (Taipei: Guoli bianyi guan, 1999), 235–312; Peng Yu, "Liang-Han jingming wenzi zhengli yu kaoshi" 兩漢鏡銘文字整理與考釋 (PhD diss., Fudan Univ., 2013); Chūgoku kokyō no kenkyūhan, "Zenkan kyōmei shūseki" 前漢鏡銘集釋, *Tōhō gakuhō* 84 (2009): 139–209; idem, "Gokan kyōmei shūseki" 後漢鏡銘集釋, *Tōhō gakuhō* 86 (2011): 201–89; Hayashi, *Kan Sangoku Seishin kyōmei shūsei* 漢三国西晉鏡銘集成 (Yokohama: Yokohama nūrashia bunkakan, 2015).

inscriptions makes it possible for us to engage in issues on the aesthetic of brightness that are either absent or only hastily mentioned in the transmitted texts. These epigraphic verses in this paper serve as unofficial histories and firsthand accounts about the Han mirror makers' marketing strategies and users' perceptions of these seemingly trivial metal discs.

Early Chinese mirror inscriptions are by no means a popular subject in Western sinology. In the decades since Karlgren's phenomenal paper, only a handful of scholars have engaged with this rich and unique material. A few art historians, making sporadic use of inscriptional evidence, have offered iconographic readings of specific types of motifs. In his study of five Eastern Han mirrors bearing the unusual design of the historical Wu Zixu 伍子胥 story, Eugene Wang quotes a formulaic inscription on a late Western Han mirror from Changsha to argue for the figure as a trope for loyalty.[10] Focusing on the much more widespread TLV mirrors, Lillian Tseng enumerates a few more inscriptions about the *liubo* game board as well as the Han pursuit of immortality and auspiciousness, considering the TLV design a talismanic icon.[11] Shifting from the iconographic focus to the metallic materiality of Han mirrors, Ken Brashier has examined three inscriptions through which he endeavored to reestablish the symbolic connection between the metallic durability of the mirror and the longevity of its owner in the mortuary context.[12] In a more recent article, Brashier points out that Han mirror inscriptions adopt a so-called modular rhetoric whose main purpose is decorative as the "actual meaning is absent."[13] He cautions that we must be wary about indexing specific meanings of inscriptions to specific mirrors as these texts were constructed out of a finite repertoire of modules. Undoubtedly, the majority of these inscriptions are versified idioms that appear formulaic and cliché,[14] and yet, this should not be the reason to diminish their research value in terms of studying the beliefs and idea systems of early imperial China, as "they neatly codify otherwise raw experiences and indicate how the welter of period sentiments was ordered."[15] More importantly, some of the inscriptional verses, differentiated from the more generic auspicious blessings that appeared on other types of objects, are exclusively associated with mirrors, and they are semantically meaningful to communicate the aesthetic appreciation for the mirror shared across that society. These idioms frequently articulate and rhapsodize over notions of radiance and brilliance, illumination and reflection, which I consider constitute the aesthetic of brightness uniquely encapsulated by bronze mirrors and widely appreciated in Han society.

10. Wang, "Mirror, Death, and Rhetoric: Reading Later Han Chinese Bronze Artifacts," *The Art Bulletin* 76.3 (1994): 511–34, esp. 528.

11. Tseng, "Representation and Appropriation: Rethinking the TLV Mirror in Han China," *Early China* 29 (2004): 201–5.

12. Brashier, "Longevity like Metal and Stone: The Role of the Mirror in Han Burials," *T'oung Pao* 81.4/5 (1995): 228.

13. Brashier, "Han Mirror Inscriptions as Modular Texts," in *The Lloyd Cotsen Study Collection of Chinese Bronze Mirrors*, vol. 2, *Studies*, ed. Lothar von Falkenhausen and K. E. Brashier (Los Angeles: Cotsen Occasional Press, 2011), 107.

14. There are a number of exceptions, which might have resulted from more personal customizations. One such example, a late Eastern Han mirror bearing the excerpted version of the ode "Shuo ren" 碩人 in the *Shi jing* 詩經, has been extensively examined in Wolfgang Behr, "Shuo ren *jing* 碩人鏡," in *A Sourcebook of Ancient Chinese Bronze Inscriptions*, ed. Constance A. Cook and Paul R. Goldin (Berkeley: Society for the Study of Early China, 2016), 298–302. Another prominent example is inscribed on a recently discovered large dressing mirror; see Jue Guo, "The Life and Afterlife of a Western Han 'Covered Mirror' from the Tomb of Marquis of Haihun (59 BCE)," *Journal of Chinese History* 3 (2019): 203–32.

15. Wang, "Mirror, Death, and Rhetoric," 529. Wu Hung also points out that "bronze mirrors were objects of daily use. Their decoration often directly reflects the dominant trends of thought of the time"; Wu Hung, "Buddhist Elements in Early Chinese Art (2nd and 3rd Centuries A.D.)," *Artibus Asiae* 47.3/4 (1986): 283.

Focusing on the words of illumination cast on Han bronze mirrors, the present paper argues that specular brightness as a defining property of the physical mirror was aestheticized for its solar- and lunar-like radiance. This symbolic and cosmological correlation between the sun, the moon, and bronze mirrors enabled the latter to possess cosmetic, moral, and apotropaic functions. To do so, this paper investigates the nuanced usages of these terminologies in articulating the aesthetic ideas of brightness ingrained in the minds of Han artisans and users. It examines how specular brightness was advertised by producers and how it was cast in high-tin bronzes and embodied solar and lunar brilliance to illuminate the individual and the world as well as discern the invisible. It foregrounds the physical and symbolic connections between specular brightness and the sun and moon, highlighting the appreciation and appropriation of the two celestial bodies in Han mirror consumption. By analyzing both canonical and inscriptional discourses on specular brightness, I hope to shed more light not only on Han mirrors, however, but also on the intricate relationship between transmitted and excavated texts, between philosophical thinking and popular beliefs.

ADVERTISING BRIGHTNESS

Among all the words of illumination inscribed on Han mirrors, the most ubiquitous is *ming* or brightness. Unlike their intellectual counterparts who originally philosophized this notion, Han artisans frequently made use of the same terminology in various ways to vaunt the reflective and radiant properties of their products, which must have had a strong appeal to potential buyers.[16] As a result, the Han mirror artisans perceived specular shininess as a defining feature of bronze mirrors.

In the second century BCE, mirror artisans began to advertise the quality of *ming* by coining and inscribing commercial-like slogans to lure prospective clients. One of the earliest extant examples (Fig. 2), excavated from Linzi 臨淄, Shandong, boldly states, "This mirror is truly bright" 此鏡甚明.[17] Its small seal script and grass-leaf motif securely date the mirror to the second half of the second century BCE; at this time, the conventional designs reminiscent of those of the Warring States period were gradually supplanted by new inventions, especially those that incorporated words and images. In this case, the adverb *shen* 甚 accentuates the mirror's brilliance.

This advertising strategy prevailed throughout the Han as the mirror industry sprung up to meet the increasing consumer demand. Concurrently, the archaic four-character verses grew into lengthier and livelier seven-character sentences, a literary phenomenon that coincided with the contemporary development of poetry.[18] The statement "This bright mirror made by Mr. Zhu satisfies and pleases the user" 朱氏明竟快人意 expresses the pleasurable experi-

16. For the commercial aspect articulated in the Han mirror inscriptions, refer to Barbieri-Low, *Artisans in Early Imperial China*, 145–49.

17. The catalog originally identifies the phrase as "the immortal mirror is supremely bright" 仙鏡萬明; Shandong sheng wenwu kaogu yanjiusuo 山東省文物考古研究所, *Jianyao Qi-Lu: Shandong sheng wenwu kaogu yanjiusuo chutu tongjing yanjiu* 鑒耀齊魯：山東省文物考古研究所出土銅鏡研究 (Beijing: Wenwu chubanshe, 2009), pl. 64-2. However, my close examination of the inscription and comparison with other inscriptions indicate otherwise. A similar example can be found in Wang Ganghuai 王綱懷, *Hanmingzhai cangjing* 漢銘齋藏鏡 (Shanghai: Shanghai guji chubanshe, 2010), pl. 46.

18. Zhao Minli 趙敏俐, "Lun qiyanshi de qiyuan jiqi zai Handai de fazhan" 論七言詩的起源及其在漢代的發展, *Wen shi zhe* 2010.3: 24–43; Li Li 李立, "Qiyan jingge: Qiyanshi xingcheng de zhongyao huanjie" 七言鏡歌：七言詩形成的重要環節, *Zhongguo shehui kexuebao*, July 28, 2014, http://www.cssn.cn/wx/wx_gdwx/201407/t20140731_1275017_1.shtml.

Fig. 2. Photograph of mirror inscribed *ci jing shen ming* 此鏡甚明, second century BCE, unearthed from Yixi shenghuoqu, Linzi. Courtesy of Shandong Provincial Institute of Archaeology, Ji'nan. After *Jianyao Qi-Lu*, pl. 64-2

ence evoked by the mirror's luminosity.[19] Recurrently found on several late Western Han mirrors, this phraseology points to a specific private workshop headed by a Mr. Zhu, the master draftsman or crew foreman in charge of production.[20] Similar statements, such as "[May you] be satisfied and pleased reflecting in this bright mirror" 昭是明鏡人快意, appear on some Eastern Han mirrors endeavoring to persuade clients of the aesthetic pleasure in seeing their own reflection.[21]

The two centuries of the Eastern Han witnessed an increasing number of private workshops that did not shy away from promoting their craftsmanship in terms of attaining specular brightness. On a triangle-rimmed mirror decorated with deities and beasts, a typical late Eastern Han pattern, the anonymous artisan claims, "I made this bright mirror that is superbly fine" 吾作明竟甚大好.[22] On another mirror with the same decoration, the inscription draws a connection between its dazzling quality and the dexterous craftsmanship of the artisan who produced it: "I made this bright mirror that is superbly artful"

19. Chūgoku, "Zenkan kyōmei shūseki," 178; Wang Ganghuai, *Sanhuaitang cangjing* 三槐堂藏鏡 (Beijing: Wenwu chubanshe, 2004), pl. 85; Xin Guanjie 辛冠潔 and Chen Jieqi 陳介祺, *Chen Jieqi cangjing*: *Di 2 juan* 陳介祺藏鏡：第二卷 (Beijing: Wenwu chubanshe, 2001), pl. 91; Chen Fengjiu 陳鳳九, *Danyang tongjing qingci bowuguan: Qian Jing Tang* 丹陽銅鏡青瓷博物館：千鏡堂 (Beijing: Wenwu chubanshe, 2007), pl. 88.

20. All these mirrors are unequivocally adorned with TLVs, immortals, and cardinal beasts, which further suggests that they were probably made by the same workshop around the same period.

21. The inscription on a TLV mirror with four cardinal deities dating to the Eastern Han reads, "Reflecting in the bright mirror satisfies and pleases the user" 昭是明鏡人快意; Chūgoku, "Zenkan kyōmei shūseki," 177; a slightly different phrase inscribed on another mirror with a nearly identical decoration encourages the same enjoyment: "Reflecting in the bright mirror is truly pleasurable" 昭此明鏡誠快意; Chūgoku, "Zenkan kyōmei shūseki," 179; Chen Fengjiu, *Qian Jing Tang*, pl. 96.

22. The mirror was excavated from tomb no. 10 of the famous Kurozuka Kofun 黑塚古墳 in Nara Prefecture, Japan; see Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 72; *jing* 竟 here is a phonetic loan of *jing* 鏡.

吾作明竟甚大工.[23] The artisan would even describe his mirror as rare and extraordinary because of the quality of its shine: "I made this bright mirror that is superbly and uniquely extraordinary" 吾作明鏡甚獨奇.[24] As in the above examples, the adverb *shen* underscores the rareness and uniqueness of the mirror's brightness in an exaggerated tone.

While the compound word *ming jing* (bright mirror) prevails in the transmitted texts of the Warring States and Han periods, its appearance in inscriptions was sporadic. Conversely, the character *ming* 明 was often paired with the verb *zhao* 昭 to form lively and poetic prose, exemplified by the following verse, "[The mirror's] inner purity is to reflect/manifest brightness" 內清質以昭明, a prevailing phraseology that recurrently decorated a variegated array of mirror types during the late second and first centuries BCE.[25] The term *zhao* literarily means "to see" as a verb, according to the *Erya* 爾雅, the oldest surviving dictionary in China.[26] Paul W. Kroll further demonstrates that its meaning extends to "shine on, illuminate, brighten, show, display, manifest."[27] Decades ago, Karlgren noted that *zhao* is a synonym for the verb *zhao* 照, specifically, "to reflect, to reflect light, to illuminate, to show the image of, to look at one's image."[28] These two strands of interpretation unveil the semantic richness and complexity of this term in Han mirror inscriptions.

When the artisan felt that the term *ming* alone was not enough to praise the superior quality of his shimmering product, he would not hesitate to compound it with other adjectives of illumination, one of the most favored of which in the Eastern Han was *guang* 光. In many inscriptions, the scribe juxtaposed *ming* and *guang* to repeatedly highlight a mirror's luster. The inscription on a late Eastern Han mirror claims, for instance, "The mirror made by the yellow auspicious [metal] is bright and glowing" 黃羊作鏡明而光.[29] It appears for the most part that the two characters constitute a compound word to describe specular brightness. "The mirror made by the yellow auspicious [metal] is fine and glowingly bright" 黃羊作鏡，好而光明, reads the inscription on another late Eastern Han mirror.[30] This idiom is commonly cast on mirrors adorned with figures of deities and animals.[31] For example, an anonymous artisan in 174 CE boldly proclaims that his mirror would bestow an everlasting illumination: "On the *bingwu* day of the first lunar month, year three of Xiping, I made this *shang fang* bright mirror . . . [may your family] possess the glowing brightness from gen-

23. Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 234.

24. It is inscribed on a TLV mirror unearthed at Yixian 易縣 in Hebei province; Xia Suying 夏素穎, "Hebei chutu Handai tongjing (shang)" 河北出土漢代銅鏡（上）, *Wenwu chunqiu* 2015.3: 27–35.

25. Numerous examples of this phrase have been documented; see Lin Suqing, "Liang-Han jingming huibian," 294; for archaeological examples, see Kong and Liu, *Zhongguo gudai tongjing*, 68–69. Most mirrors carrying this phraseology are adorned with the pattern of revolving scallops and short oblique lines, according to Lin Suqing, "Liang-Han jingming chutan" 兩漢鏡銘初探, *Bulletin of the Institute of History and Philology Academia Sinica* 63.2 (1993): 334. Of the three hundred Han mirrors excavated in the vicinity of Chang'an, at least ninety-two are patterned with revolving scallops; see Cheng Linquan 程林泉 and Han Guohe 韓國河, *Chang'an Hanjing* 長安漢鏡 (Xi'an: Shaanxi renmin chubanshe, 2002), 89.

26. *Erya zhushu* 爾雅注疏, comm. Guo Pu 郭璞 (Taipei: Taiwan guji chubanshe, 2002), 41.

27. Kroll, *A Student's Dictionary of Classical and Medieval Chinese* (Leiden: Brill, 2015), 549.

28. Karlgren, "Early Chinese Mirror Inscriptions," 22; Karlgren correctly noted that *zhao* 昭 and *zhao* 照 could be interchangeable in the inscriptional context. However, it should be noted that *zhao* 照was indeed a later replacement for *zhao* 昭, as the former was not added to modify *ming* until the late Eastern Han.

29. The mirror is adorned with coiling dragons; Gugong bowuyuan 故宮博物院, *Gugong cangjing* 故宮藏鏡 (Beijing: Zijincheng chubanshe, 1996), pl. 70; Karlgren reads the character *yang* 羊 as a phonetic loan word for *xiang* 祥 and interprets *huang yang* as "the yellow auspicious [metal]"; Karlgren, "Early Chinese Mirror Inscriptions," 36–37.

30. Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 766.

31. Huo Hongwei 霍宏偉 and Shi Jiazhen 史家珍, *Luojing tonghua: Luoyang tongjing faxian yu yanjiu* 洛鏡銅華：洛陽銅鏡發現與研究 (Beijing: Kexue chubanshe, 2013), pl. 144.

eration to generation" 熹平三年，正月丙午，吾造作尚方明竟…世得光明.[32] When the word order is reversed—*ming guang*—a new compound with a subtly different meaning is formed, as seen on a mirror unearthed from the Lu'an 六安 region in Anhui: "[The mirror] as radiant and lustrous as beautiful jade is made to produce bright glow" 美玉昭華，以爲明光.[33] Here, *ming guang* becomes a noun to refer to a lustrous radiance and beauty that is comparable to that of fine jade. Sometimes, the term *guang* appears by itself as the noun for a mirror's reflected light. On a mirror cast in 167 CE, the inscription records, "I made this bright mirror following my own method; the white bronze is clear and bright, it greatly abounds in glow 吾作明竟自有方，白同清明大多光.[34] It attributes the mirror's radiance to its raw material, the high-tin bronze.

CASTING BRIGHTNESS

The interplay between the inner substance of *qing* (purity) and the outer appearance of *ming*, as in the abovementioned *zhao ming* verse, indicates that the brightness of a mirror was predicated upon the purity of its substrate. The attainment of specular reflection and thereby brightness is physically related to the manufacturing processes of bronze mirrors—the mining, smelting, casting, and polishing—on which modern technological studies have shed light.[35] Han mirror inscriptions reveal clues concerning all the four technical procedures, although this evidence is often buried beneath exaggerated rhetorical encomiums.

These writings do not hesitate to extol the virtues of how the artisans mined, extracted, and alloyed the ores to produce speculum metal and to underscore their indispensable roles in achieving specular brightness. On a late Western Han mirror allegedly found in the capital Chang'an 長安, the inscription speaks about mining and smelting sequentially: "The native character of this mirror is hard and firm in essence, resting in the famous mountains [its metals] waited for workers to mine; [I] smelted and acquired its lustrous quintessence whose glow irradiates and shines" 維鏡之舊生兮質剛堅，處于名山兮俟工人，湅取菁華兮光燿

32. This mirror features four abstracted heads of an unknown beast; Liu Xinyuan, *Qigushi jijin wenshu, juan* 15.7; for a similar example, see Wang Shilun 王士伦 and Wang Mu 王牧, *Zhejiang chutu tongjing (xiuding ban)* 浙江出土銅鏡（修訂版）(Beijing: Wenwu chubanshe, 2006), pl. 31. This date of manufacture has been found on a number of Eastern Han bronze mirrors; Hideki Mitsutake 光武英樹, "Kan Sangoku Seishin kinen kyōmei ni okeru eto to sakyō nengapi no kenkyū" 漢三國西晉紀年鏡銘における干支と作鏡年月日の研究, *Tōhō gakuhō* 87 (2012): 53–86. The *bing wu* day as a special time in a year selected for casting also appears in the Eastern Han text *Lunheng* by Wang Chong 王充 (27–ca. 100): "In the fifth month, on a *bingwu* day when the sun rises to apex, [the artisan] melts the five stones, and casts an instrument with which one can obtain fire" 五月丙午日中之時，消煉五石，鑄以為器，乃能得火; *Lunheng jiaoshi* 論衡校釋, comm. Huang Hui 黃暉 (Beijing: Zhonghua shuju, 1990), 16.696; translation adapted from Alfred Forke, *Lun-heng*, vol. 2 (New York: Paragon Book Gallery, 1962), 351. Both *bing* as one of the ten celestial stems and *wu* as one of the twelve earthly branches indicate fire. As Pang Pu 龐樸 has noted, the meaning of this date on the bronze mirrors may have been auspicious rather than realistic; Pang Pu, "'Wuyue bingwu' yu 'zhengyue dinghai'"「五月丙午」與「正月丁亥」, *Wenwu* 1979.6: 81–84.

33. *Lu'an chutu tongjing* 六安出土銅鏡, ed. Anhui sheng wenwu kaogu yanjiusuo 安徽省文物考古研究所 and Lu'an shi wenwuju 六安市文物局 (Beijing: Wenwu chubanshe, 2008), pl. 69.

34. The character *tong* 同 is a phonetic loan word for *tong* 銅. This mirror is decorated with abstracted animal heads; Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 77. A similar example with the identical decoration reads, "The white bronze is clear and bright, and also abounds in light" 白同清明復多光; Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 78.

35. For a good and up-to-date account on this topic in English, see David A. Scott, "The Technical Analysis of Chinese Mirrors," in *Lloyd Cotsen Study Collection*, 2: 198–233; in Chinese, see He Tangkun 何堂坤, *Zhongguo gudai tongjing de jishu yanjiu* 中國古代銅鏡的技術研究 (Beijing: Zijincheng chubanshe, 1999).

焞.[36] The inscriber juxtaposes the string of illumination words—*jing*, *hua*, *guang*, *yao*, and *tun*—to remind the reader of its radiance inside and out.

Mirror inscriptions from the first century CE onward recurrently referred to the technical act of extracting metals from ores as *yuan lian* 淵湅 (deeply smelt), *you lian* 幽湅 (darkly smelt), *xuan lian* 玄湅 (dimly smelt), *qing lian* 清湅 (purely smelt), and *he lian* 合湅 (smelt together). The most common is *you lian*: just as a dexterous artisan from the late Eastern Han announces, "I made this bright mirror by smelting the hard metals in the dark" 吾作明竟，幽湅金岡.[37] It is not clear as to why the smelting business had to be done in a dark environment. One plausible explanation suggests that *you* in this context is meant to form an antithetical binary with *ming* in the couplet; hence, it correlates with the *yin-yang* theory prevalent in Han society.[38] Another interprets *you* as "mysterious" and "secretive,"[39] which indicates that the artisans were inclined to conceal their recipes about how to smelt and create speculum alloys.

Furthermore, the Eastern Han inscriptions inform us about the basic metallurgical formula. "I made this bright mirror by secretively smelting the three metallic notes" 吾作明鏡，幽湅三商, proclaims one late Eastern Han mirror.[40] Scholars commonly agree that *san shang* connotes the three major metals of bronze, namely, copper, tin, and lead.[41] According to Karlgren, the other two phrases, "three auspicious metals" (*san yang* 三羊) and "three hard metals" (*san gang* 三岡), sporadically serve as synonyms to replace *san shang*.[42] The numerical "three" in all three examples seems to refer to the three types of metals. Occasionally, the metallic colors—*huang bai* 黃白 (yellow and white)—are used as metonyms to designate smelted copper and tin.[43]

The dominant element in speculum metal was copper, as the Han artisans correctly recognized: "For the mirror to be clear and bright, the copper must be fine" 鏡清明，銅必良.[44] At times, the artisans would foreground the lustrous characteristic of the ore itself: "The interior [of the mirror] is glowing, bright, and clear; [I] smelted the lustrous ore, and acquired its quintessence" 内而光，明而青，湅石華，下之菁.[45] A similar phrase says "[I] purified and smelted the lustrous copper" 清冶同華.[46] Both *shi hua* 石華 and *tong hua* 銅華 denote the copper ore, which, in natural settings, would gleam under dark conditions.

36. *Sheng* 生 is a phonetic loan word for *xing* 性; Cheng and Han, *Chang'an Hanjing*, pl. 56; Chūgoku, "Zenkan kyōmei shūseki," 173.

37. Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 586; for a similar example, see *Hanjing wenhua yanjiu* 漢鏡文化研究, ed. Qinghua daxue Hanjing wenhua yanjiu ketizu 清華大學漢鏡文化研究課題組 (Beijing: Beijing daxue chubanshe, 2014), 2: pl. 193.

38. Kazuchika Komai 駒井和愛, "Kan kō meibun ni miyuru 'yuren sanshō' no igi nitsuite" 漢鏡銘文に見ゆる「幽湅三商」の意義に就いて, *Jinruigaku zasshi* 57.9 (1942): 361–64.

39. He Tangkun interprets the character *you* as "mysterious" and "secret"; He Tangkun, *Zhongguo gudai tongjing*, 94.

40. Chūgoku, "Gokan kyōmei shūseki," 276–77.

41. Liu Tizhi, *Shanzhai jijin lu*, 1: 28; Kazuchika, "Kan kō meibum," 361–64; He Tangkun, *Zhongguo gudai tongjing*, 93–101. As Brashier has pointed out, the phrase *san shang* "draws upon five-phase cosmology as applied to music, the *shang* musical note correlating with metal"; Brashier, "Han Mirror Inscriptions as Modular Texts," 102.

42. Karlgren, "Early Chinese Mirror Inscriptions," 37.

43. Lu Xun has proposed that *bai* and *huang* connote the white color of metal and the yellow color of the earth, respectively; see Lu Xun 魯迅, "Xin chutu Lü Chao muzhi ming kaozheng" 新出土呂超墓誌銘考證, *Beijing daxue rikan*, June 25, 1918.

44. *Hanjing wenhua yanjiu*, 2: pl. 89.

45. Chūgoku, "Zenkan kyōmei shūseki," 174–75.

46. Here, *tong* 同 is a phonetic loan for *tong* 銅; Liang Shangchun 梁上椿, *Yanku cangjing*: *Di 2 ji (shang)* 巖窟藏鏡：第二集上 (Beijing: Liang Shangchun, 1940), pl. 44.

Tin, and to a lesser extent, lead, are also recorded in the inscriptions. Take, for example, a formulaic phrase of the late Western Han: "In the Han regime, the best copper is produced in Danyang; the copper makes a pure and bright [mirror] when mixed with silver-colored tin" 漢有善銅出丹陽，和以銀錫清且明.[47] Danyang, one of the Han commanderies in today's southeast Anhui province, was historically known for mining fine copper.

Scholars of ancient metallurgy agree that the Han artisans understood and appreciated the value of tin in forging the properties of bronze and therefore intentionally added it in the smelting process. An oft-cited piece of textual evidence are the Six Formulae (*liu qi* 六齊) of the *Kaogong ji* 考工記, which was compiled around the fifth century BCE.[48] One of the formulae, the so-called formula of mirrors and sun-igniters (*jian sui zhi qi* 鑑燧之齊), comments on the composition of bronze mirrors: "copper [in half] and tin in half" 金錫半. According to Zheng Xuan's 鄭玄 (127–200 CE) annotation, "copper added with plenty of tin will appear tenacious, white and bright" 凡金多錫，則忍、白且明也.[49] As a prominent scholar of the Eastern Han, Zheng himself might not have had firsthand experience with casting; rather, he must have obtained the knowledge from contemporary artisans who had mastered by heart that a bronze mirror's material attributes—hardness, whiteness, and brightness—are primarily conditioned by the ratio of tin to copper. This notion has been confirmed by modern scientific experiments.[50] Archaeometallurgy tells us that lead, when added to the bronze alloy, will help lower the melting point. An unusual inscription indeed mentions the lead content: "[I made] a pure and bright [mirror] by mixing and harmonizing lead and tin" 和周鉛錫淸且明.[51] Interestingly, the mixture of these three metals correlates with *san shang*, the three metals for mirror casting.

For a bronze mirror to formulate a clear reflection, superficial smoothness is also important. The smoother and flatter a mirror surface, the clearer and truer the mirrored image will be. To attain specular brightness, Han artisans employed a special technical procedure, with polishing as the last step. "When the bright mirror has just been cast, it is bleary and does not yet reflect appearances" 明鏡之始下型，曚然未見形容, describes the *Huainanzi* 淮南子. Because its surface after immediate casting could be quite obscure, a mirror must be polished mechanically. This is why the *Huainanzi* explains that only after being rubbed with *xuan xi* 玄錫 (dark-black tin) abrasive and polished with a white rough cloth can the mirror attain

47. Chūgoku, "Zenkan kyōmei shūseki," 194.

48. The existing scholarship has proposed three different dates for the formation of this text, including the Eastern Zhou, the Warring States, and the Han. See Wenren Jun, *Ancient Chinese Encyclopedia of Technology: Translation and Annotation of the* Kaogong ji. *The Artificers' Record* (New York: Routledge, 2013), 1–10; Guo Moruo 郭沫若, "Kaogong ji de niandai yu guobie" 考工記的年代與國別, in *Guo Moruo wenji* 郭沫若文集 (Beijing: Renmin wenxue chubanshe, 1962), 16: 381–85; Liu Hongtao劉洪濤, "*Kaogong ji* bushi Qiguo guanshu"考工記不是齊國官書, *Ziran kexueshi yanjiu* 1984.4: 359–65; Xuan Zhaoqi 宣兆琦, "*Kaogong ji* de guobie he chengshu niandai" 考工記的國別和成書年代, *Ziran kexueshi yanjiu* 1993.4: 297–303.

49. *Zhouli zhengyi* 周禮正義, comm. Sun Yirang 孫詒讓 (Beijing: Zhonghua shuju, 2013), 78.3240.

50. Liang Jin梁津, "Zhoudai hejin chengfen kao" 周代合金成分考, in *Zhongguo gudai jinshu huaxue ji jindanshu* 中國古代金屬化學及金丹術 (Shanghai: Zhongguo kexue tushu yiqi gongsi, 1955), 52–66; Zhang Zigao 張子高, "Liuqi biejie" 六齊別解, *Qinghua daxue xuebao* 1958.2: 159–66; Zhou Shimin 周始民, "Kaogong ji liuqi chengfen de yanjiu" 考工記六齊成份的研究, *Huaxue tongbao* 1978.3: 54–57; Wu Laiming 吴来明, "Liuqi: Shangzhou qingtongqi huaxue chengfen jiqi yanbian de yanjiu" 六齊：商周青銅器化學成分及其演變的研究, *Wenwu* 1986.11: 76–84; He Tangkun, "Liuqi zhi guankui"六齊之管窺, in *Kejishi wenji*, vol. 15: *Huaxue shi zhuanji* 科技史文集：化學史專輯, ed. Zhongguo kexueyuan ziran kexue shi yanjiusuo (Shanghai: Shanghai kexue jishu, 1989), 80–91; Su Rongyu 蘇榮譽, "Kaogong ji liuqi yanjiu" 考工記六齊研究, in *Zhongguo keji dianji yanjiu: Diyijie Zhongguo keji dianji guoji huiyi lunwenji* 中國科技典籍研究：第一屆中國科技典籍國際會議論文集 (Zhengzhou: Daxiang, 1998), 79–95; Lu Dimin 路迪民, "Liuqi xintan" 六齊新探, *Wenbo* 1999.2: 70–74.

51. *Zhou* 周 is a phonetic loan word for *tiao* 調; Chūgoku, "Gokan kyōmei shūseki," 243.

enough brightness to reflect "a single hair of an eyebrow."[52] The same instruction is recorded in the Eastern Han scholar Gao You's 高誘 (fl. 205–212 CE) annotation of the *Lüshi chunqiu* 呂氏春秋: "The bright mirror is capable of seeing the ugliness of a person . . . having been wiped with dark-black tin and rubbed with white pelt" 鏡明見人之醜…抇以玄錫，摩以白旃.[53] Here, the term *xuan*, in addition to describing the dark-black hue of the abrasive, also forms a contrasting pair with *ming*, in the same way as the abovementioned pairing of *you* and *ming*.[54]

Until now, scholars have proposed six interpretations of the content of *xuan xi*: 1) quicksilver; 2) a combination of quicksilver and tin (tin amalgam); 3) black lead; 4) a combination of lead and tin; 5) a combination of tin, mercury, alum, and deerhorn ash; and 6) gray tin (α-tin).[55] To resolve the long-standing dispute with empirical data, archaeologists have conducted lab analyses of a number of Han mirrors' surface layers to seek evidence of residual mercury.[56] A few have even conducted experiments to replicate the polishing process and to determine the exact abrasive that was used.[57] These experimental studies show that a mercury-tin amalgam was likely the correct formula to form a thin and silvery coating on the surfaces of Han mirrors.

For unknown reasons, however, this last process of mirror making is scarcely referred to in the inscriptional texts. Even when it does appear, the meaning seems obscure. One such surviving example, initially documented by the eminent Qing antiquarian Sun Xingyan 孫星衍 (1753–1818), rhapsodizes over the so-called dark-black tin: "[Your extended beneficence is like] the glossy [mirror] coated by the dark-black tin" 伋玄錫之流澤.[58] Since then, scholars have uncovered several other mirrors bearing nearly identical verses, all of which are associated with the decoration of *panchi* dragons and TLVs—one of the earliest mirror types in the Western Han.[59] This phraseology is part of a lengthy inscription composed of twelve rhymed seven-character lines, which begins with the following couplet: "[The mirror's] inner purity is to reflect brightness; its glow resembles the sun and the moon" 內清質以昭明，

52. *Huainanzi jishi* 淮南子集釋, comm. He Ning 何寧 (Beijing: Zhonghua shuju, 1998), 19.1339; translation adapted from John Major et al., *The Huainanzi* (New York: Columbia Univ. Press, 2010), 776.

53. *Lüshi chunqiu jishi* 呂氏春秋集釋, comm. Xu Weiyu 許維遹 (Beijing: Zhonghua shuju, 2009), 20.567. According to Qiu Xigui 裘錫圭, Gao You's annotation was derived from the parallel text in the *Huainanzi*; Qiu Xigui, "Lun Han Jin zhuanzhu xungu yu guji yiwen zhi guanxi" 論漢晉傳注訓詁與古籍異文之關係, in *Chengji yu tuoxin: Hanyu yuyan wenzixue yanjiu* 承繼與拓新：漢語語言文字學研究, ed. He Zhihua 何志華 and Feng Shengli 馮勝利 (Hong Kong: Shangwu yinshuguan, 2014), 28.

54. For a concise introduction of the symbolic meanings and materiality of colors in early China, refer to Guolong Lai, "Colors and Color Symbolism in Early Chinese Ritual Art," in *Color in Ancient and Medieval East Asia*, ed. Mary M. Dusenbury (New Haven: Yale Univ. Press, 2015), 25–46.

55. He Tangkun, *Zhongguo gudai tongjing*, 231–34; Han Jishao 韓吉紹, "Gudai xigongqi jiqi yingyong" 古代錫汞齊及其應用, *Guangxi minzu daxue xuebao* 2007.1: 22–27; Li Huaitong 李懷通 and Li Yujie 李玉潔, *Zhongguo tongjing guan* 中國銅鏡觀 (Zhengzhou: Zhongzhou guji chubanshe, 2010), 48–50; Tan Derui 譚德睿, "Hanjing biaomian fuxi jishu yanjiu" 漢鏡表面富錫技術研究, in *Hanjing wenhua yanjiu*, 1: 300–312.

56. Scott, "Technical Analysis of Chinese Mirrors," 198–233; Zhou Shoukang and He Tangkun, "Studies of Ancient Chinese Mirrors and Other Bronze Artifacts," in *Metal Plating and Patination: Cultural, Technical, and Historical Developments*, ed. Susan La Niece and P. T. Craddock (Boston: Butterworth-Heinemann, 1993), 50–62, esp. 60.

57. Chen Yuyun 陳玉雲 et al., "Moni 'heiqigu' tongjing shiyan yanjiu" 模擬「黑漆古」銅鏡試驗研究, *Kaogu* 1987.2: 177; Tan Derui, "Hanjing biaomian fuxi jishu yanjiu," 300–312.

58. *Xu guwen yuan* 續古文苑, comp. Sun Xingyan (Wuxian: Zhushi huailu jiashu, 1885), 14.5.

59. Chūgoku, "Zenkan kyōmei shūseki," 143; Wang Ganghuai, "Xi-Han panchiwen mingwen jing yanjiu: Hanzi bihui libian chuyi" 西漢蟠螭紋銘文鏡研究：漢字避諱、隸變芻議, *Shoucangjia* 2012.1: 31–34; Wang Ganghuai, *Sanhuaitang cangjing*, pl. 46: "sparkling the glossy luster of the dark-black tin" 煥玄錫之流澤.

光輝象夫日月.[60] As the inscription indicates, in addition to the technical refinement of the bronze substrate, the two celestial bodies are also pertinent to a mirror's brightness.

EMBODYING BRIGHTNESS

Why would the aforementioned inscription compare the light of the mirror to that of the sun and moon? Where did the mirror's light come from? In other words, if the Han artisans considered mirrors to be a medium to transmit light, what would possibly activate their illuminating power? To answer these questions, we must peruse the inscriptions that address the sun and moon.

To date, the earliest inscription mentioning the sun is *jian ri zhi guang* 見日之光, which surrounds the central knob of a mirror adorned with striped commas, a conventional type that circulated only during the early Western Han.[61] Later on, this particular verse permeated inscriptions on mirrors embellished with a variety of patterns, including silkworms (*can wen* 蠶紋), winding snakes (*panhui wen* 蟠虺紋), grass leaves (*caoye wen* 草葉紋), and revolving scallops (*lianhu wen* 連弧紋), all of which date to the Western Han (Fig. 3). These specimens account for a significant portion of the entire Western Han mirror corpus that survives.

This modular verse pinpoints the sun as the source of light. I make this proposition based on a close reading of the character *jian* 見, the interpretation of which has been contested in previous scholarship. "Chūgoku kokyō no kenkyū han" considers *jian* to be a phonetic loan for *xian* 現, "to manifest, to reveal."[62] Alternatively, Li Xueqin 李學勤 interprets *jian* as the preposition, *bi* 比, which means that something can be perceived as comparable to something else, in this case, a mirror's reflected light compared to sunlight.[63] However, this proposed usage of *jian* finds no equivalent example in contemporary Qin or Han texts, in which *jian* refers exclusively to the act of optical seeing. In the *Huainanzi*, for example, *jian* is used to characterize a mirror's encounter with the sun or the moon: "When the burning mirror encounters the sun, it ignites tinder and produces fire. When the square receptacle encounters the moon, it moistens and produces water" 故陽燧見日，則燃而為火，方諸見月，則津而為水.[64] Following this line, the idiomatic expression, *jian ri zhi guang*, can thus be interpreted as "[the mirror] encounters the light of the sun," which vividly reveals the source of illumination for the Han mirror.

In contrast to the *Huainanzi* text that refers to both the sun and the moon, Han mirror inscriptions rarely portray the moon as a light source,[65] although it is often eulogized for its brilliance—a point to be discussed below in this section. Historically, other light sources for mirroring include lamps, torches, candles, and open fires—the most common forms of artificial lighting two thousand years ago. The illumination of these devices, albeit not surpassing that of the sun, would be sufficiently luminous to form a mirror reflection. Excavations over

60. One of the earliest extant examples was excavated from an early Western Han tomb at Zhengwangzhuang, Xi'an city: see Chūgoku, "Zenkan kyōmei shūseki," 144.

61. *Hanjing wenhua yanjiu*, 2: pl. 30.

62. Chūgoku, "Zenkan kyōmei shūseki," 155.

63. Li Xueqin, "Riguang jingming xinshi" 日光鏡銘新釋, *Wenbo* 2013.1: 16–17.

64. *Huainanzi jishi*, 3.82, tr. Major, *Huainanzi*, 116.

65. To date, the only exceptions are two identical Han-style mirrors uncovered from an earthen-urn burial site in Saga 佐賀 prefecture and bearing the pattern of eight revolving scallops; Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 374 and 1287. Their inscription states, "[The mirror] sees the bright light of the sun and moon" 見日月之明光. It is not clear whether these two mirrors were imported from China or were imitations crafted by local Japanese artisans.

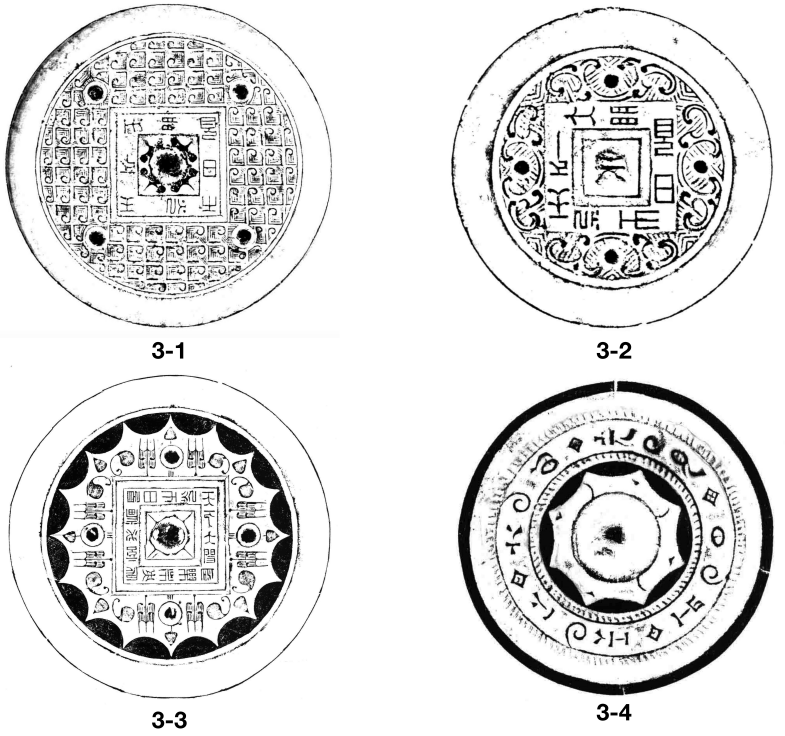

Fig. 3. 1) Ink rubbing of mirror with striped commas and the "sunlight" inscription, early Western Han. Courtesy of Wang Ganghuai. After *Hanjing wenhua yanjiu*, 2: pl. 30. 2) Ink rubbing of mirror with C-shaped scrolls and the "sunlight" inscription, early Western Han. Courtesy of Wang Ganghuai. After *Hanjing wenhua yanjiu*, 2: pl. 22. 3) Ink rubbing of mirror with "grass leaf" pattern and the "sunlight" inscription, mid-Western Han. Courtesy of Yangzhou Museum. After *Han Guanglingguo tongjing*, pl. 20. 4) Ink rubbing of mirror with revolving scallops and the "sunlight" inscription, late-Western Han. Courtesy of Yangzhou Museum. After *Han Guanglingguo tongjing*, pl. 34

the past decades have uncovered numerous examples of Han bronze and clay lamps.[66] Fashioned in anthropomorphic and zoomorphic forms, these lamps were owned by people across different social classes. It is therefore reasonable to assume that Han mirror users must have relied on lamps or candles in domestic spaces. Nevertheless, the inscriptional absence of any reference to either lunar or artificial lighting indicates that these mirror craftsmen and clients accentuated and eulogized the sun as the main source of illumination.

66. For a survey of archaeological findings of Han dynasty lamps, see Shen Yunyan 申雲艷, "Handai tongdeng chubu yanjiu" 漢代銅燈初步研究, in *Handai kaogu yu Han wenhua guoji xueshu yantaohui lunwenji* 漢代考古與漢文化國際學術研討會論文集, ed. Handai kaogu yu Han wenhua guoji xueshu yantaohui lunwenji bianwei hui (Jinan: Qi-Lu shushe, 2006), 340–54. According to Sun Ji 孫機, the Chinese invention of the oil lamp can be dated to the early Shang period; Sun Ji, *Zhongguo shenghuo: Zhongguo gu wenwu yu dongxi wenhua jiaoliu zhong de ruogan wenti* 中國聖火：中國古文物與東西文化交流中的若干問題 (Shenyang: Liaoning jiaoyu chubanshe, 1996), 5. For a good English summary of the early Chinese history of candles, see Xiaofei Tian, "Illusion and Illumination," *Harvard Journal of Asiatic Studies* 65.1 (2005): 9–21. See also Albert E. Dien, "Lighting in the Six Dynasties Period: To Make a Light to Seek Clarity," *Early Medieval China* 13–14 (2007): 1–32.

The reflectivity of the moon, however, is perceived as being analogous to that of a mirror. As an early Western Han phraseology acclaims, "[The mirror] encounters the glow of the sun and possesses moonlike brightness" 見日之光，有月之明,[67] which not only analogizes specular brightness to lunar brightness but also highlights the sun as the underlying cause. This poetic analogy is only one of many that were composed and inscribed throughout the Western Han.[68] Mirror scribes even coined a lyrical term, *jiao guang* 皎光, to designate lunar-like radiance: "[The mirror] shines as glistening and beautiful as the white-bright moonlight" 如皎光而耀美.[69] A variant reads, "[The mirror] associated with the white-bright moonlight is dazzling and beautiful" 處皎光而輝美.[70] The two terms, *yao mei* 耀美 and *hui mei* 輝美, are to some extent interchangeable; both describe the dazzling attraction of the radiant mirror that resembles the gleaming moonlight, at least metaphorically.

The appreciation of lunar incandescence fostered among mirror users resonates with the poetic writings of the Han. For example, an anonymous Eastern Han poet sighed, "How glisteningly white is the bright moon!" 明月何皎皎.[71] At least three other Han poetic examples link the beauty of *jiao* to the moon.[72] According to the Eastern Han dictionary *Shuowen jiezi* 說文解字, the graph 皎 denotes the white and glowing surface of the moon.[73] Nevertheless, this explanation is only partially true, as the received texts show that *jiao* was used to modify the brightness and whiteness of the sun. This point is evident in the *Chuci* 楚辭: "the bright sun at dawn is so white and bright" 晞白日兮皎皎.[74] It is further attested to in a Western Han inscription, which says, "Silvering the lucidity and luster, the essence [of the metal] is sunlight white" 浪清華兮，精皎日,[75] which makes an analogy between the shining mirror and the bright sun for their shared color—white. At times, inscriptions describe the light reflecting off a mirror as "bright as sunlight" 明如日光 or "comparable to sunlight" 如日之光.[76] In most cases, however, the reflected light is perceived as analogous to both sunlight and moonlight, a poetic notion phrased as "[the mirror glows] as the light of the sun and

67. The mirror was excavated from current-day Changzhi 長治, Shanxi province; Chūgoku, "Zenkan kyōmei shūseki," 158. Another version found on two mirrors uncovered in the vassal state of Guangling 廣陵 (current-day Yangzhou 揚州) reads, "[The mirror] encounters the light of the sun and possesses the brightness that resembles the moon" 見日之光，若月之明; Xu Zhongwen 徐忠文 and Zhou Changyuan 周長源, *Han Guangling guo tongjing* 漢廣陵國銅鏡 (Beijing: Wenwu chubanshe, 2013), pl. 19.

68. Perhaps not coincidentally, all three mirrors are adorned with the grass-leaf pattern, a popular decoration throughout the middle Western Han.

69. The mirror was unearthed from a wood-chambered tomb in Shuoxian county dating to the early Western Han; Qu Shengrui 屈盛瑞, "Shanxi Shuoxian Xi-Han bingxue muguomu" 山西朔縣西漢並穴木槨墓, *Wenwu* 1987.6: 53–60; Lin, "Liang-Han jingming huibian," 235–312; Chūgoku, "Zenkan kyōmei shūseki," 163–64. A slightly varied version is "yao jiao guang er yao mei" 姚皎光而耀美; Nishida Morio 西田守夫 remarks that *yao* means beautiful; Nishida, "Kan kyōmei hoshaku: You kou kou kyō no shoku nitsuite" 漢鏡銘補釈：姚皎光鏡の初句について, *Tokyō kokuritsu hakubutsukan kenkyu shi* 158 (1964): 31–34.

70. Liu Tizhi, *Xiaojiaojingge jinwen taben*, 16.35.

71. Quoted from *Gushi yuan* 古詩源, comp. Shen Deqian 沈德潛 (Beijing: Zhonghua shuju, 1963), 4.92.

72. *Gushi yuan*, 4.89: "The bright moon [emits] white night light" 明月皎夜光; *Gushi yuan*, 4.90: "The Weaver Girl in the Milky Way is glisteningly white" 皎皎河漢女.

73. *Shuowen jiezi*, ed. Xu Xuan 徐鉉 (n.p.: Jigu ge, n.d.), 7.21: "*Jiao* is the whiteness of the moon" 皎，月之白也; *Hanyu dazidian* 漢語大字典 (Wuhan: Chongwen shuju, 1991), 2648.

74. *Chuci buzhu* 楚辭補註, comm. Hong Xingzu 洪興祖 (Beijing: Zhonghua shuju, 1983), 15.272.

75. *Hanjing wenhua yanjiu*, 2: pl. 116; for a similar example, see Chūgoku, "Zenkan kyōmei shūseki," 163.

76. Guangxi zhuangzu zizhiqu bowuguan 廣西壯族自治區博物館, *Guangxi tongjing* 廣西銅鏡 (Beijing: Wenwu chubanshe, 2004), pl. 104; Qiu Longsheng 邱龍昇, *Liang-Han jingming wenzi yanjiu* 兩漢鏡銘文字研究 (Beijing: Zhongguo shehui kexue chubanshe, 2012), 14; Chūgoku, "Zenkan kyōmei shūseki," 147.

moon" 如日月之光, "as the sun- and moonlight" 如日月光, or "the light [emitted from the mirror] resembles that of the sun and moon" 光似日月.[77]

To add value to their products, Han artisans would go to great lengths to magnify the mirrors' physical association with and resemblance to the sun and moon. Mirrors of this type are usually signed with the names of individual artisans. One early example, described at the beginning of the paper, was made by the artisan Feng in 15 BCE.[78] In several late Eastern Han specimens, the artisans foreground their mirrors' property of brilliance, stimulating consumers to covet and cherish them: "[The mirror] that is as bright as the sun and moon is rare in the world" 明如日月世少有.[79] Another example that rhapsodizes over its solar- and lunar-like rarity reads, "Mr. Wang made this mirror that is gratifying and fine; it is as bright as the sun and the moon, which is a treasure for generations" 王氏作竟佳且好，明而日月世之保.[80] Both praise mirrors for their fineness and rareness in resembling the sunlight and moonlight.

The aesthetic obsession with the sun and moon among artisans and users of mirrors prevailed into the early years of the third century CE. Such inscriptions could be highly individualized: "Zhang Yuangong from Huyang, Wu county . . . made this bright mirror, which converges the light of the sun and moon to attain brightness" 吳郡胡陽張元公…造為明鏡，日月合萌.[81] From the early Western Han through the late Eastern Han, from Feng to Zhang Yuangong, from Luoyang to the Yangtze River delta, the specular brightness that converges the sun and moon, physically and symbolically, was a widely advertised and appreciated feature of bronze mirrors.

The solar and lunar embodiment of the bronze mirror correlated with the *yin-yang* cosmology that prevailed throughout the Han period. Unlike objects that were associated with either *yin* or *yang*,[82] however, the mirror embodied both. Toward the end of the Eastern Han, the scholar-official Gao Tanglong 高堂隆 (d. 237 CE) articulated the dualistic mechanism in the making of a bronze mirror: "The *yang* talisman, also known as the *yangsui* mirror, obtains fire from the sun; the *yin* talisman, also known as the *yinsui* mirror, fetches water from the moon. Both mirrors were made with bronze, and were named the mirrors of water and fire" 陽符，一名陽燧，取火於日。陰符，一名陰燧，取水於月。並入銅作鏡，名

77. Chūgoku, "Zenkan kyōmei shūseki," 195; also see Hebei sheng wenwu yanjiusuo 河北省文物研究所, *Lidai tongjing wenshi* 歷代銅鏡紋飾 (Shijiazhuang: Hebei meishu chubanshe, 1996), pl. 37; Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 1146.

78. See n. 1 above.

79. Chūgoku, "Gokan kyōmei shūseki," 244–45.

80. It is inscribed on a pictorial mirror carved with a dragon, a tiger, and several immortals; this mirror was unearthed from Nara 奈良; Chūgoku, "Gokan kyōmei shūseki," 246. Translation adapted from Karlgren, "Early Chinese Mirror Inscriptions," 68. Another two mirrors, bearing similar phrases and respectively signed by two artisans, Li and Long, were purportedly uncovered in the lower Yangtze River valley; Yixing shi wenwu guanli weiyuanhui 宜興市文物管理委員會, *Yingzhi shengong, guangyao yangxian: Yixing minjian shoucang tongjing jingpinji* 瑩質神工光耀陽羨：宜興民間收藏銅鏡精品集 (Beijing: Wenwu chubanshe, 2013), pl. 130; Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, 828.

81. Chūgoku, "Gokan kyōmei shūseki," 276; epigraphic evidence that is similar to that found in Echeng 鄂城, Hubei province, says, "We made this upscale mirror, which illuminates downward like the sun and the moon" 吾人作上竟，照下象日月; Chūgoku kokyō no kenkyū han, "Sangoku Seishin kyōmei shūseki" 三國西晉鏡銘集釋, *Tōhō gakuhō* 86 (2011): 306.

82. Regarding the exhaustive development of this theory in early imperial China, A. C. Graham notes that all opposed binaries were neatly arranged "along a single chain, with one member Yin and the other Yang." This extremely long list incorporated vast categories of things and concepts from distinct realms of both the natural and social worlds, including cosmological phenomena, the four seasons, state affairs, people, objects, and much more; Graham, *Yin-Yang and the Nature of Correlative Thinking* (Singapore: Institute of East Asian Philosophies, 1986), 27.

曰水火之鏡.[83] According to the inscription on a TLV mirror of the first century CE, the artisan "carved, engraved and smelted the mirror to embody the quintessence of the sun and the moon" 雕刻冶鏡日月精.[84] The "quintessence" in the inscriptional context seems to echo the essences of solar fire and lunar water described in Gao's passage. The underlying correlative logic thus becomes clear: the bronze mirror made with the water of the moon and the fire of the sun epitomizes *yin* and *yang*.

To Han intellectuals, the sun correlates with fire and emits light; the moon correlates with water and reflects light: "The sun is approximately the same as fire, and the moon is approximately the same as water; fire is outward light whereas water contains a light-image" 夫日譬猶火，月譬猶水，火則外光，水則含景.[85] This reflectivity of the watery moon contingent upon the brilliance of the sun is analogous to that of the mirror, as the latter imitates the former's reflective capacity. This analogy is elaborated by the Western Han scholar Jing Fang 京房 (78–37 BCE): "The moon and the stars are the ultimate *yin*; they have shape but no light. They become lightened only when the sun illuminates them. Similarly, the sun illuminates the mirror and therefore the latter manifests light-image" 月與星，至陰也，有形無光，日照之乃光，如以鏡照日，而有景見.[86] The philosophical thinking closely resonates with a contemporaneous mirror inscription, which reads, "[The mirror's] outer light and inner image greatly irradiate the abyss" 外光內景兮輝蕩淵.[87] But different from the philosophical texts, the inscriptional text here stresses that both the emitted light and reflected image, the essential characteristics of the sun and the moon, are embodied in the mirror. To our modern eyes, mirrors and the two celestial bodies may appear to be fundamentally different entities, but Han mirror inscriptions drew close parallels between them and extolled their shared features of emitting and reflecting light.

ILLUMINATING THE INDIVIDUAL

As the foregoing discussion demonstrates, the specular brightness that is homologous to the sun and moon came to be a selling point, an essential physical property, and a (meta-) physical embodiment of early imperial Chinese mirrors. Han society cherished these small yet shining artifacts, not merely because they possessed a radiance that might be aesthetically pleasing to look at and think about but also because mirrors were capable of performing certain functions, the realization of which was believed to be predicated upon their association with the sun and the moon.

First, the Han mirror beholders were promised to be able to see their outer appearances thanks to the brightness of their mirrors. As an anonymous artisan proclaims in the first century BCE, "I smelted the lustrous copper to obtain its clarity and used it to make the mirror that reflects the form of the body" 冶煉銅華得其清，以之為鏡昭身刑.[88] This primary motive had been repeatedly inscribed on mirrors as early as the second century BCE: "[The mirror] reflects and examines your garments and observes your countenance" 昭察衣服觀容貌.[89] Another variant in late Western Han created an even more detailed list of things to

83. Quoted from *Taiping yulan* 太平御覽, comp. Li Fang 李昉 (920–996) (Shijiazhuang: Hebei jiaoyu chubanshe, 1994), 717.584.

84. Zhejiang, *Gujing jinzhao*, pl. 80; an identical example is seen in Wang Ganghuai, *Zhishui ji: Wang Ganghuai tongjing yanjiu lunji* 止水集：王綱懷銅鏡研究論集 (Shanghai: Shanghai guji chubanshe, 2016), 113.

85. *Hou Han shu* 後漢書 (Beijing: Zhonghua shuju, 1965), 10.3216.

86. *Lunheng jiaoshi*, 11.506.

87. *Hanjing wenhua yanjiu*, 2: pl. 52.

88. The character *xing* 刑 is a phonetic loan for *xing* 形; Chūgoku, "Zenkan kyōmei shūseki," 169.

89. Chūgoku, "Zenkan kyōmei shūseki," 160.

be mirrored: "[The mirror] reflects the upper part of the body, [and displays] the perfectly complete body; [it] mirrors the garments, which are finely observable" 昭匈脅，身萬全，象衣服，好可觀.[90] These specimens were uncovered from the central plains as well as northwest, southeast, and southwest China in the early empire, demonstrating a widespread interest in mirroring the self for adequate appearances at that time.[91] Consequently, the popularity of bronze mirrors among men and women in Han China could be partly attributed to these objects' capacity of helping the beholder adjust his or her outward appearance.

With the help of a mirror, one would be able to ensure one's proper attire, which was an important social etiquette for the Han elites, just as the inscription on a late Western Han mirror unearthed from Guangxi reads: "[You may] see your countenance and adjust yourself aided by the mirror" 視容正己鏡為右.[92] This cosmetic demand for the mirror had already been articulated in pre-Qin texts. According to the Warring States philosopher Han Fei 韓非 (ca. 280–233 BCE), "the ancient person fell short of self-reflection with his own eyes and thus used a mirror to contemplate his face" 古之人目短於自見，故以鏡觀面. Han Fei further warns of the adverse consequence of not having a mirror at one's disposal because "when one's eyes lose sight of the mirrored [images], one will not be able to correct one's beard and eyebrows" 目失鏡則無以正鬚眉.[93] This is to say that a mirror could serve as a perfect visual aid for examining one's image, an advisable conduct for gentlemen and ladies because only with a mirror in hand could one enhance one's physical appearance.

The characteristics of optical discernment is further elaborated in a mirror inscription dating from the Xin interregnum: "[The mirror is able to] reflect your face, and discern black and white" 昭君面目白黑分.[94] Here, the binome *bai hei* 白黑, or white and black, signifies the distinction between wisdom and foolishness, purity and impurity, worthy and unworthy.[95] This idea echoes the ocular power of the eye articulated in the *Su wen*, which considers that it is *ming* that enables the eye to see the world: "In any given instance, the eyeball is bright so as to see ten thousand things, discern white and black, scrutinize short and long" 夫精明者，所以視萬物，別白黑，審短長.[96] In her etymological discussion, Nylan has noted the equivalence between mirroring and seeing: "The earliest graphs for mirrors . . . show a man either looking down into a mirror placed horizontally or looking straight into a plane mirror held at right angles, the mirror being represented as a gigantic eye look-

90. Kong Xiangxinn and Liu Yiman, *Zhongguo tongjing tudian* 中國銅鏡圖典 (Beijing: Wenwu chubanshe, 1992), 314.

91. Mirrors bearing this type of inscription have been excavated from Shaanxi, Henan, Shandong, Gansu, Anhui, Hunan, and Zhejiang; Huo and Shi, *Luojing tonghua*, pl. 66; Nanyang shi wenwu kaogu yanjiusuo 南陽市文物考古研究所, *Nanyang chutu tongjing* 南陽出土銅鏡 (Beijing: Wenwu chubanshe, 2010), pl. 411; Shandong sheng bowuguan 山東省博物館, *Shandong Sheng bowuguan cangzhen* 山東省博物館藏珍 (Ji'nan: Shandong wen hua yin xiang, 2004), pl. 20; *Lu'an chutu tongjing*, pl. 65; Zhou Shirong 周世榮, *Hunan chutu Handai tongjing wenzi yanjiu* 湖南出土漢代銅鏡文字研究 (Beijing: Zhonghua shuju), pls. 31 and 43; Wang and Wang, *Zhejiang chutu tongjing*, pl. 14; Liu Dezhen 劉得禎 and Zhu Jianyin 朱建寅, "Lingtaixian Goumen Hanmu qingliji" 甘肅靈臺縣溝門漢墓清理記, *Kaogu yu wenwu* 1980.2: 18–19; Shaanxi sheng wenwu guanli weiyuanhui 陝西省文物管理委員會, *Shanxisheng chutu tongjing* 陝西省出土銅鏡 (Beijing: Wenwu chubanshe, 1959), pl. 37; *Wanjiang Han Wei tongjing xuancui* 皖江漢魏銅鏡選粹, ed. Anhui sheng wenwu kaogu yanjiusuo (Hefei: Huangshan shushe, 2010), pls. 72, 80.

92. The character *you* 右 is a phonetic loan word for *you* 佑. Chūgoku, "Zenkan kyōmei shūseki," 172.

93. *Han Feizi jijie* 韓非子集解, comm. Wang Xianshen 王先慎 (Beijing: Zhonghua shuju, 1998), 8.197.

94. Wang Ganghuai, *Hanmingzhai cangjing*, pl. 109.

95. *Shi ji*, 130.3292: "white and black hence give their forms" 白黑乃形; *Guanzi jiaozhu* 管子校注, comm. Li Xiangfeng 黎翔鳳 (Beijing: Zhonghua shuju, 2004), 67.1219: "as the discernment between white and black" 如白黑之分.

96. *Huangdi neijing Su wen*, 17.133.

ing back at the person."[97] In other words, the visual perception of the mirror is analogous to that of the human eye. The character 明 is transcribed in a homonym, *ming* 朙 in a number of inscriptions, with its left component written as *mu* 目 ("eye") rather than *ri* 日 ("sun").[98] Aside from its meaning of "brightness," this character also denotes a "bright pupil." The eye and the mirror are juxtaposed in the *Guanzi* 管子 and *Huainanzi*, which claim that "[Such a person] mirrors himself in the great purity, and he sees with great brightness" 鏡大清者視乎大明.[99] Just as the mirror was modeled after the brightness of the sun and moon, so was the human eye: "What is the human eye modeled on? It is modeled on the brightness of the sun and moon" 人目何法？法日月明也.[100] Once again, the two celestial bodies were key to the development of the mirror's clear visual perception as well as that of the human eye.

In addition to reflecting the outer appearance of the beholder, a Han mirror was to lighten and beautify the mirrored subject as a mirror's reflected light was believed to glamorize its user. "[This mirror] is clear and bright and [thus] befits the beautiful person" 清光宜佳人, says the verse inscribed on a mirror of the mid-Western Han.[101] On occasion, the reflected light is analogized with that of the moon. Such light belongs to the *yin* realm with which the mirrored fair lady resonated: "The *yin* light [generated from] the lustrous bronze befits the beauty" 金英陰光宜美人.[102] As these lyrical lines imply, women buyers would covet these mirrors for their beautifying power. The same craving must have existed among male customers, for whom a bright mirror was capable of reflecting an idealized image of its owner, which could make one's reflection as graceful as that of a noble and as charming as the essence of jade.[103] Toward the end of the Eastern Han, inscriptional prose became more vulgar but still implied that looking into a mirror was an act that, more than simply revealing the image of a subject, entailed shining on the subject: "This mirror will illuminate the wearer" 鏡照明服者也.[104]

A Han mirror was symbolically imbued with the capacity to illuminate its beholder's image to a degree that would resemble the sun and moon, the two most glamorous celestial bodies. For example, the mirror image of the viewer is paralleled with the moon in a late Eastern Han inscription: "[The mirror] spits out the radiance from the sun, and reflects a

97. Nylan, "Beliefs about Seeing," 113.

98. For instance, see Hayashi, *Kan Sangoku Seishin kyōmei shūsei*, nos. 257, 276, 288, 289, 290–98, 304–8, 314, and 316.

99. *Guanzi jiaozhu*, 13.783; *Huainanzi jishi*, 2.107.

100. *Baihu tong shuzheng* 白虎通疏證, annot. Chen Li 陳立 (Beijing: Zhonghua shuju, 1994), 4.198.

101. The mirror bears concentric rings and revolving scallops, a popular pattern during the mid- and late Western Han; Huo and Shi, *Luojing tonghua*, pl. 66.

102. Chūgoku, "Zenkan kyōmei shūseki," 160. Not surprisingly, the mirror carrying this verse is adorned with the same decoration dating from the mid-Western Han.

103. "[The mirror] reflects the spirits, and [its owner] will be a marquis or a king. Your whole body will be as fine and beautiful as the essence of jade" 昭神明鏡相侯王，眾身美好如玉英; translation adapted from Tseng, "Representation and Appropriation," 205. Previously, Wu Hung translated the term *yu ying* as "Jade Flower"; see Wu Hung, *The Wu Liang Shrine: The Ideology of Early Chinese Pictorial Art* (Stanford: Stanford Univ. Press, 1989), 239. Fashioned in an extremely ornamental form of small seal script, the prose surrounds the central round knob decorated with a quatrefoil. The outer decorative band consists of a number of deities and animals alternating with flower petals. The mirror was found in tomb 4 at Yinwan 尹灣, Lianyungang 連雲港; the character *zhong* 眾 could be a phonetic loan for *zhong* 終: Chūgoku, "Zenkan kyōmei shūseki," 194; a similar example is published in the Donald H. Graham Jr. collection, albeit with some variations; see Tōru Nakano and Suzanne Cahill, *Bronze Mirrors from Ancient China: Donald H. Graham Jr. Collection* (Hong Kong: Orientations, 1994), pl. 39.

104. This inscription dates the mirror to 227 CE, shortly after the fall of the Han dynasty; Hubei sheng bowuguan 湖北省博物館 and Ezhou shi bowuguan 鄂州市博物館, *Echeng Han Sanguo Liuchao tongjing* 鄂城漢三國六朝銅鏡 (Beijing: Wenwu chubanshe, 1986), pls. 110 and 181.

countenance that resembles the brightness of the moon" 吐所日翟，容象月明.[105] This analogy between one's mirror image and celestial brilliance can be traced back to as early as the Xin interregnum. In a famous example, the artisan endeavored to establish parity between a person's reflection and both the sun and the moon: "[This mirror] reflects your image as [handsome] as Duke Jing and as pleasurable as the pretty Wu; this bright mirror is made to formulate images that resemble the sun and the moon" 景公之象兮，吳娃之兌，作於明鏡兮，象似日之月.[106] The inscription's anachronistic juxtaposition of the two attractive historical figures, Duke Jing of Qi 齊景公 (ca. 550–490 BCE) and Wu Mengyao 吳夢瑤 (d. 301 BCE),[107] which never occurs in transmitted texts, seems to have served as a collective reference to persons with glamorous looks, a rhetorical device used to persuade potential buyers of a mirror's benefit. More importantly, the resemblance of a person's mirror image to the sun and moon might have carried a physiognomic connotation. According to the early medical text *Su wen* 素問, compiled no later than the Eastern Han, "the outer appearance [of the exemplary men] resembled sun and moon" 象似日月.[108] While the inscription composer of the aforementioned mirror may or may not have read the medical text, the association between the ideal image of a person and the two celestial bodies must have been some sort of tacit knowledge embedded in contemporary minds.

As the above discussion shows, owing to its specular brightness, a Han mirror was believed to be able to not only faithfully reflect the beholder's face, body, and garments, but also beautify its beholder with its glowing radiance. To promote this enticing feature of their products, the mirror artisans proudly analogized the physical reflection of the viewer with the glowing sun and moon. The idealization of the mirror image might have been predicated upon the physiognomy of the ideal man in the Han. This is to suggest that what was reflected in a mirror was not limited to the visible.

DISCERNING THE INVISIBLE

From the perspective of the early philosophers, craftsmen, and customers, a mirror—due to its illuminating power that resembles the sun and moon—would be capable of supplementing and amplifying human vision. As an optical tool, the shiny polished surface of a bronze mirror has the capacity to clearly reflect the physical image of the viewer, whose own eyes cannot see himself directly. However, the impartial and infallible vision provided by the specular metal by no means ends at a superficial level; rather, it promises an all-seeing power capable of revealing the inner feelings and bodily organs of the beholder which are invisible to the naked eye. This optical magic was even believed to enable a mirror to manifest true

105. The example is carved on a late Eastern Han mirror with deities and beasts; Chūgoku, "Gokan kyōmei shūseki," 280.

106. Zhejiang sheng bowuguan 浙江省博物館, *Gujing jinzhao: Zhongguo tongjing yanjiuhui chengyuan cangjing jingcui* 古鏡今照：中國銅鏡研究會成員藏鏡精粹 (Beijing: Wenwu chubanshe, 2012), 182–83. A nearly identical mirror is seen in the 1975 catalog of Chinese bronzes by Helmut Brinker, *Bronzen aus dem alten China* (Zürich: Museum Rietberg, 1975), pl. 89.

107. According to Li Xueqin, the duke in the text refers to Duke Jing of Qi 齊景公 (ca. 550–490 BCE), who was historically known for his comeliness. Li also surmises that "the pretty Wu" must refer to Wu Mengyao 吳夢瑤 (d. 301 BCE), the queen of King Wuling of Zhao 趙武靈王 (340–295 BCE), a celebrated beauty of her time. See Li Xueqin, *Sihai xunzhen* 四海尋珍 (Beijing: Qinghua daxue, 1998), 92.

108. *Chongguang buzhu Huangdi neijing Su wen* 重廣補注黃帝內經素問, comm. Wang Bing 王冰 (ca. 710–804) (Shanghai: Shangwu yinshuguan, 1922?), 1.10; tr. Paul Unschuld and Hermann Tessenow, *Huang Di nei jing su wen: An Annotated Translation of Huang Di's Inner Classic—Basic Questions* (Berkeley: Univ. of California Press, 2011), 1: 44. For the dating of *Su wen*, see Nathan Sivin, "*Huang ti nei ching* 黃帝內經," in *Early Chinese Texts: A Bibliographical Guide*, ed. Michael Loewe (Berkeley: Univ. of California Press, 1993), 196–215.

forms of demonic spirits, an exorcist practice that became associated with religious Daoism no later than the end of the Eastern Han.

As inscriptional evidence suggests, the perceptive merit of the mirror was initially understood as a device to detect the emotion and disposition of the beholder. "[The mirror] see[s] one's body and knows the dispositions of others" 見弓己、知人請, claims an Eastern Han inscription excavated from Changsha.[109] This belief was frequently entertained in a number of mirror inscriptions. The mirror was endowed with the capability of revealing not only the physical body and but also the inherent qualities of a person. As Nylan has pointed out, "humans are notoriously likely to fail in that most fundamental of social tasks, accurately seeing and judging others (*zhi ren* 知人)."[110] To make up for the situation, bright mirrors were employed to "see" the propensity of humans mysterious and invisible to the human eye. The usage of the mirror as an auxiliary faculty for seeing the unseeable, as illustrated by these examples, was conceived and propagated as early as the early Western Han, when the phrase "This mirror does not conceal human dispositions" 鑑不隱請 was inscribed on a number of mirrors.[111] Another Western Han variant explicitly links the act of mirroring to the task of judging a person: "Looking at the bright mirror, [you] will know the dispositions of others" 昭是明鏡知人請.[112] This optical clarity of a mirror may be enhanced by its affinity to the celestial bodies: "[The mirror is] as shining as the sun and moon and knows the dispositions of others" 光象日月智人請.[113]

However, this remarkable function of seeing the invisible with which the mirror was embodied was questioned by the third-century scholar-official Fu Xuan 傅玄 (217–278 CE), who in turn emphasized a metaphorical mirroring through one's fellow humans: "looking into a mirror, one only sees one's appearance; looking into other people, one finds real feeling" 人徒覽於鏡，止於見形，鑒人可以見情.[114] Here Fu Xuan contrasts the mirror's superficial reflection with that of the more profound human dispositions and emotions. According to Wu Hung, this represents a new, post-Han development in the discourse about mirrors and mirroring.[115] However, a close reading of the Han texts proves that the equivalence between mirroring and superficiality already existed long before the Wei-Jin periods. For example, the *Zhong lun* 中論 by Xu Gan 徐幹 (d. 217 CE) remarks that "The petty person is ashamed of being inferior to Zidu [a handsome nobleman in the Spring and Autumn period] regarding his countenance, whereas the gentleman is ashamed of being inferior to [the ancient rulers] Yao and Shun regarding his conduct" 小人恥其面之不及子都也，君子恥其行之不如堯舜也. This passage concludes, "The petty person prefers a bright mirror, whereas the gentleman prefers the utmost true words" 故小人尚明鑒，君子尚至言.[116] A similar comment is articulated in *Shi ji* 史記: "Those who use water for reflection see the appearance of their faces; those who reflect themselves in other people know the auspicious and inauspicious" 鑒於水者見面之容，鑒於人者知吉與凶.[117] These statements unanimously discredit the idea that a mirror is capable of reflecting one's inner disposition, forming a marked contrast with

109. Zhou Shirong 周世榮, "Hunan chutu Handai tongjing wenzi yanjiu" 湖南出土漢代銅鏡文字研究, *Guwenzi yanjiu* 1986.14: 69–176. *Qing* 請, a phonetic loan for *qing* 情 in this context, denotes human emotions.

110. Nylan, "Beliefs about Seeing," 97.

111. Chūgoku, "Zenkan kyōmei shūseki," 141.

112. Chūgoku, "Zenkan kyōmei shūseki," 177.

113. This phraseology is inscribed on a late Western Han TLV mirror; Chūgoku, "Zenkan kyōmei shūseki," 172.

114. Translation adapted from Wu Hung, "The Admonitions Scroll Revisited," in *Gu Kaizhi and the Admonitions Scroll*, ed. Shane McCausland (London: British Museum Press, 2003), 91.

115. Wu Hung, "Admonitions Scroll Revisited," 91.

116. *Zhong lun jiegu* 中論解詁, comm. Sun Qizhi 孫啟治 (Beijing: Zhonghua shuju, 2014), 5.88.

117. *Shi ji* (Beijing: Zhonghua shu, 1982), 79.2423.

Fig. 4. Photograph of mirror inscribed *jin qing yin guang, ke yi qu xin* 金清陰光，可以取信, mid-Western Han. Courtesy of Shaanxi History Museum, Xi'an. After *Qianqiu jinjian*, pl. 43

the mirror inscriptions. As such, the discussion exposes the fissure between transmitted and inscriptional texts, which roughly corresponds to the two strands of thinking, philosophical and popular.

A few exceptional inscriptions from the Western Han specify what is to be revealed—trustworthiness (*xin* 信) and integrity (*cheng* 誠), which are cardinal virtues in Confucian teaching. A mirror inscription dating from the second century BCE exemplifies this expression: "The purity of the *xuan* metal could make visible trustworthiness and integrity" 玄金之清，可取信誠.[118] Here, the two moral characters may refer to the person being mirrored or to the mirror itself for providing an accurate and reliable reflection. Occasionally, the two merits perceptible in mirrors were singled out and emphasized in separate phraseologies. In the specimen found at Yadigao village, Liquan county, Shaanxi, the epigraph shifts the attention from the speculum itself to the reflected light, whose metallic and pure quality is associated with the trustworthy virtue: "The *yin* light of metallic clarity can capture the trustworthiness [of the beholder]" 金清陰光，可以取信 (Fig. 4).[119] In another case, the words *zhi cheng* 志誠 (aspiration and integrity) replaces *xin cheng*: "The immaculate metal [of the mirror] shows my form and manifests [my] aspiration and integrity" 金之菁，視吾刑，見志誠.[120] Hence, the bronze mirror is praised for faithfully recognizing both the outer

118. Shaanxi sheng kaogu yanjiusuo 陝西省考古研究所, "Shaanxi touzi cehua fuwu gongsi hanmu qingli jianbao" 陝西投資策劃服務公司漢墓清理簡報, *Kaogu yu wenwu* 2006.4: 19; for the identification of the inscription, also see Qiu Longsheng, *Liang-Han jingming wenzi yanjiu*, 22.

119. Shaanxi lishi bowuguan 陝西曆史博物館, *Qianqiu jinjian: Shaanxi lishi bowuguan cang tongjing jicheng* 千秋金鑒：陝西曆史博物館藏銅鏡集成 (Xi'an: Sanqin chubanshe, 2012), pl. 43. For similar examples, see Wang Ganghuai, *Hanmingzhai cangjing*, pl. 36; Wang Ganghuai, *Zhishuige cangjing* 止水閣藏鏡 (Beijing: Qinghua daxue chubanshe, 2015), pl. 69.

120. Karlgren pointed out that *jing* 菁 was in some cases a loan graph for *jing* 精, meaning the essence of bronze; Karlgren, "Early Chinese Mirror Inscriptions," 67. But *jing* 菁 could also be used in inscriptions as a variant of the aforementioned term *qing* 清, denoting the immaculateness of the surface.

physical form and inner moral qualities of its viewer, thanks to the immaculateness of its metallic surface.

The all-seeing vision of the mirror was fictionalized and then poeticized in post-Han transmitted texts, including the *Shuyi ji* 述異記, *Xijing zaji* 西京雜記, and in various Tang poems from the fifth century CE onward. In the *Shuyi ji*, a collection of fabulous tales traditionally attributed to Ren Fang 任昉 (460–508 CE),[121] we read that in a remote state called Rilin 日林 in the southwest, a colossal stone mirror measuring several hundred square *li* in size is "capable of reflecting one's five viscera and six bowels" 可鑒五臟六腑.[122] This is to say that the mythical device could reveal organs underneath the skin as a modern X-ray scanner does.

This legendary anecdote kindled the visceral imagination in the literature of early medieval China. Xiao Bi 蕭賁 (d. 549 CE), the author of *Xijing zaiji*,[123] probably appropriated the *Shuyi ji* story by replacing the stone mirror from the peripheral and mysterious Rilin with a rectangular bronze mirror housed at the Xianyang Palace in the Qin capital. Xiao set the story's backdrop at the beginning of the Western Han. In the story, Liu Bang 劉邦 (r. 202–195 BCE), the founding emperor of the Han, upon entering the Xianyang Palace of the Qin for the first time, saw a large rectangular mirror four *chi* wide and nearly six *chi* tall, which could vividly reflect the image of one's viscera, ailments, and diseases, and even women's licentious thoughts:

> 有方鏡，廣四尺，高五尺九寸，表裏有明，人直來照之，影則倒見。以手捫心而來，則見腸胃五臟，歷然無碍。人有疾病在內，則掩心而照之，則知病之所在。又女子有邪心，則膽張心動。秦始皇常以照宮人，膽張心動者則殺之。[124]
>
> [In the Qin Palace] is a rectangular mirror four *chi* wide and nearly six *chi* tall; the mirror possesses brightness from inside out. When one moves directly toward the mirror, one's inverted image is shown. When one touches one's heart with one's hand, one's viscera are revealed immediately with no obstruction. If a person is ill, she can cover her heart with one hand to be reflected in the mirror, and the illness will be located. If a woman holds licentious thoughts, her gallbladder will gape and her heart will quiver [which will be visible in the mirror]. The First Emperor of Qin often used [the mirror] to inspect his palace maids; whoever had a gaped gallbladder and a quivering heart [in the mirror image] would be executed.

According to this story, the rectangular mirror is described as possessing "brightness from inside out," an essential material quality for seeing through a person's clothes and skin. In this case, the reflecting power of the mirror has evolved the capacity to not only see the bodily organs but also to diagnose diseases and read the mind of the beholder. Xiao's con-

121. For a succinct introduction of this text in English, refer to David R. Knechtges and Taiping Chang, *Ancient and Early Medieval Chinese Literature* (Leiden: Brill, 2014), 2: 955–57; for a more detailed dissection of its narrative structure, see Erin L. Brightwell, "Discursive Flights: Structuring Stories in the *Shuyi ji*," *Early Medieval China* 18 (2012): 48–68.

122. Nakajima Osafumi中島長文, "Jinbō jyutsuiki kōhon" 任昉述異記校本, *Tōhō gakuhō* 73 (2001): 443.

123. This compendium of anecdotal stories pertaining to the Western Han period has been attributed to several compilers of different periods, including Liu Xin 劉歆 (ca. 50 BCE–23 CE), Ge Hong (ca. 283–343 CE), Wu Jun 吳均 (469–520 CE), Xiao Bi 蕭賁 (d. 549 CE), anonymous. For a brief review of the various attributions in Chinese, see Pan Jinying 潘金英, "*Xijing zaji* san lun"《西京雜記》三論, *Changjiang xueshu* 2012.3: 31–39; in English, Knechtges and Chang, *Ancient and Early Medieval Chinese Literature*, 3: 1648–52. I adopt Lao Kan's 勞幹 and William H. Nienhauser's attribution of Xiao Bi; see Lao Kan, "Lun *Xijing zaji* zhi zuozhe ji chengshu shidai" 論西京雜記之作者及成書時代, *Zhongyang yanjiuyuan lishi yuyan yanjiusuo jikan* 33 (1962): 19–34; Nienhauser, "Once Again, the Authorship of the *Hsi-ching tsa-chi* 西京雜記 (Miscellanies of the Western Capital)," *JAOS* 98 (1978): 219–36.

124. *Xijing zaji jiaozhu* 西京雜記校注 (Shanghai: Shanghai guji chubanshe, 1991), 3.134.

temporary Yu Xin 庾信 (513–581 CE), an aristocratic poet of the Liang and Northern Zhou dynasties, rhapsodized over the mirror for its truthfulness in revealing the internal organs of the human body and thus the inner self: "Thereupon, the mirror reflects gall and heart, which is something hard to come by" 鏡乃照膽照心，難逢難值.[125] Noticeably, the "viscera" described in the *Xijing zaji* and *Shuyi ji* are specified as two particular organs—liver (*gan* 肝) and gall (*dan* 膽)—both of which evince the moral judgment of honesty and courage. This poetic trope endowing the mirror with the clear reflection of the beholder's morality evolved and proliferated in the subsequent Tang dynasty, when several famous poets alluded to the *Xijing zaiji* story with the shortened verse "the Qin mirror illuminating one's gall" 秦鏡照膽.[126] Although to date no trace of the story has been found in Han inscriptions and received literature, it is not entirely unreasonable to speculate that its prototype might have originated in early imperial China.

While the majority of mirrors uncovered from the Qin-Han remains are small, circular discs, archaeological evidence shows that large, rectangle-shaped mirrors that conform to the legendary Qin Palace example did exist. One was excavated from an aristocratic tomb of the early Western Han at Linzi, Shandong. The rectangular mirror, measuring 115.1 cm by 57.5 cm and weighing 56.5 kg, is believed to have belonged to a Qi vassal king.[127] The size and shape of the Linzi mirror loosely matches the formal description of the Qin Palace mirror, suggesting that colossal, rectangular mirrors were indeed cast in early imperial China. The recent discovery of another large, rectangular mirror from the tomb of Marquis of Haihun 海昏侯 (d. 59 BCE) in Nanchang 南昌, Jiangxi further attests to this observation.[128] The existing evidence seems to suggest that the story of the "seeing through" mirror in the Qin Palace might have originated at the time.

As a tool for augmenting the human faculty of vision, the mirror is conceived as being capable of seeing the invisible, which even goes beyond the capacity to see the bodily organs beneath one's skin. It is supposed to be able to detect evil spirits that are optically beyond

125. "Jing Fu" 鏡賦 (Rhapsody on the mirror); *Quan shanggu Sandai Qin Han Sanguo Liuchao wen* 全上古三代秦漢三國六朝文, ed. Yan Kejun 嚴可均 (1762–1843) (Beijing: Zhonghua shuju, 1958), *Quan Hou Zhou wen*, 9.4b.

126. Poets including Qiao Lin 喬琳 (714–784), Li Bai 李白 (701–762), Du Mu 杜牧 (803–852), Zhang Wengong 張文恭 (fl. 627–649), Li Yi 李益 (ca. 750–ca. 830), Xue Feng 薛逢 (fl. ninth century) and Li Qunyu 李群玉 (808–862) all composed poems referring to the trope. This particular appreciation of a mirror's "seeing through" capability is also inscribed on Tang mirrors. The most noted inscription, the "bestowal of the mirror of the King of Qin" 賞得秦王鏡, has been translated and discussed by Ju-hsi Chou: "I received a gift: the mirror of the King of Qin; For this, I would have paid willingly a thousand taels of silver; In no way would I use it to unveil your gall; Verily, I only wish to lay bare my own heart." Chou, *Circles of Reflection: The Carter Collection of Chinese Bronze Mirrors* (Cleveland: Cleveland Museum of Art, 2000), 62–63. An alternative translation is offered by Suzanne E. Cahill: "If I could obtain as a gift the mirror of the King of Qin, I would certainly not resent [paying] a thousand [pieces of] gold. It is not that I want to illuminate gall [others' secret feelings], But especially to light up my own heart." Cahill, "The Moon Stopping in the Void," *Cleveland Studies in the History of Art* 9 (2005): 24–41. Aside from this specific prose dedicated to the trope of the Qin mirror's capacity, other epigraphic texts of the Tang contain phrases such as "reflecting gall in the Epang Palace" 阿房照膽, "reflecting gall in the Qin Palace" 照膽秦宮, "mirrored image reflecting in the Qin Palace" 影照秦宮, "reflecting quivering heart and gall" 動照心膽, and "light coming in to reflect gall" 膽照光來, to play out the same rhetoric; the inscriptions listed above are excerpted from Li Mengxue 李孟學, "Tangdai tongjing mingwen chutan" 唐代銅鏡銘文初探, *Shuhua yishu xuekan* 16 (2014): 351–86.

127. Shandong sheng Zibo shi bowuguan 山東省淄博市博物館, "Xi-Han Qiwangmu suizang qiwukeng" 西漢齊王墓隨葬器物坑, *Kaogu xuebao* 1985.2: 223–66.

128. The restored bronze panel measures 70.3 cm long, 46.5 cm wide, and 1.3 cm thick. See Wang Yile 王意樂 et al., "Haihun hou Liu He mu chutu Kongzi yijing" 海昏侯劉賀墓出土孔子衣鏡, *Nanfang wenwu* 2016.3: 61–70.

human vision, due to the attribute of brightness that embodies the divine power of the sun and moon. Mirrors are thus supposed to reveal and consequently repel the inauspicious.

Inscriptions had not articulated the apotropaic function until the late Western Han, although, in practice, mirrors might have been used for this purpose. Ardelia Ripley Hall held that "only after the Han dynasty was the mirror itself invested with magical power and freighted with weird uses" and "was believed to have the power to ward off all evil influence."[129] But the recently uncovered inscriptional evidence suggests an earlier linkage of the mirror with the apotropaic function, even though whether such function is predicated upon specular brightness is unclear. A first-century BCE inscription proclaims, "Seeing the light of the sun, the world becomes greatly illuminated. May the wearer become noble; may the mirror expel the inauspicious; may [the wearer] possess more wealth than marquises and kings; may coins and gold fill the hall" 見日之光，天下大明，服者君卿，鏡辟不羊，富於侯王，錢金滿堂.[130] Here, the apotropaic power is juxtaposed with the other personal wishes for wealth and promotion in rank; however, the phrase itself, "may the mirror expel the inauspicious," does not describe how and why the mirror offends the inauspicious.

While the inscription begins with "sunlight," its causal link to the apotropaic quality of the mirror is still ambiguous. Close parallels can be found in the Han inscriptional corpus containing phrases such as "warding off the inauspicious" 辟不祥, "repelling the inauspicious" 去不祥, "eliminating the inauspicious" 除去非祥, "warding off the ominous" 辟邪, and "eliminating the ill-omened" 除凶, most of which are dated to the Eastern Han.[131] These idiomatic expressions, albeit generic, clearly posit mirrors as talismans.

Tseng highlights the talismanic role assigned to the Han mirror, which demonstrates that the TLV design as the representation of the *liubo* game board is "endowed with the power to prevent misfortune" because it is believed to be capable of helping "the deceased to reach immortality and longevity in the other world."[132] Tseng briefly remarks on the role played by specular reflectivity in performing the apotropaic function, juxtaposing it with the TLV pattern as the "double indemnity" of the mirror as a talismanic icon (TLV) and talismanic medium (the power of reflection).[133] She illustrates the mirror's capacity to reflect evil spirits by quoting an anecdote in the *Xijing zaji* about Emperor Xuan of the Han (r. 73–49 BCE), who wore a special bronze mirror to ward off malevolent spirits and guarantee favorable outcomes.[134] A similar story in the *Dong ming ji* 洞冥記 also narrates the apotropaic use of a metal mirror in the royal palace during the reign of Emperor Xuan's great grandfather, Emperor Wu (r. 141–87 BCE):

129. Hall, "The Early Significance of Chinese Mirrors," *JAOS* 55 (1935): 187.

130. This is one of the earliest epigraphic examples describing the apotropaic function, which is inscribed on a mirror with dual-circled inscriptional bands; Chūgoku, "Zenkan kyōmei shūseki," 162; a similar example is documented and translated by Lillian Tseng: "The origin of the [inscription with] seven words has its own record. [I have] smelted copper and tin and removed their dregs. [The mirror] expels the inauspicious, and [it] benefits [your gains from] the market." Tseng, "Representation and Appropriation," 204.

131. Characters such as *xiang* 詳, *yang* 陽, and especially *yang* 羊 are used as phonetic loans for *xiang* 祥 in these inscriptions; for examples, see Lin Suqing, "Liang-Han jingming huibian," 256 (nos. 241, 245, 248), 257 (nos. 249, 252), 258 (nos. 260, 267), 259 (no. 274), 261 (nos. 288, 289, 290), 262 (nos. 301, 302, 303, 304), 263 (nos. 309, 311), 265 (no. 327), 266 (nos. 332, 334, 335), 268 (nos. 347, 351, 352, 353), 269 (nos. 356, 360), 271 (nos. 370, 371), 272 (nos. 377, 381), 273 (no. 384), 275 (nos. 398, 401), 277 (nos. 409, 410, 412), 279 (nos. 422), 280 (no. 425).

132. Tseng, "Representation and Appropriation," 199–202.

133. Tseng, "Representation and Appropriation," 205.

134. Tseng, "Representation and Appropriation," 204.

> 望蟾閣十二丈，上有金鏡，廣四尺。元封中，有祇國獻此鏡，照魑魅不獲隱形。[135]
> The Toad-Watching Pavilion is twelve *zhang* in height; hanging inside is a metal mirror measuring four *chi* long and wide. During the Yuanfeng reign [110–105 BCE], the Zhi state presented the mirror as a tribute; it is capable of reflecting mountain goblins, which would no longer be invisible.

Just as Emperor Xuan's mirror is described as a tribute from a remote state, the precious mirror housed at Emperor Wu's Toad-Watching Pavilion was offered by another foreign state called Zhi whose location and history are lost. As these anecdotes indicate, being "exotic" is key to possessing the reflective power to reveal the true forms of apparitions.

Nearly four hundred years later, the apotropaic practice involving the mirror's ability to instantly and faithfully divulge evil spirits spread from the royal palaces to the masses, and especially to Daoist practitioners, for whom a bright mirror became an indispensable implement when roaming in the mountains. Approximately four hundred years after the mirror tribute from the legendary Zhi state, Daoist master Ge Hong 葛洪 (ca. 283–343 CE) gave instruction on the method of expelling maleficent spirits with shiningly reflective mirrors: "Therefore, in the old days, every Daoist entering the mountains would suspend on his back a bright mirror measuring nine *cun* or more in diameter so that demons would not dare approach him . . . If they were birds, animals, or evil demons, their true forms would appear in the mirror" 是以古之入山道士，皆以明鏡徑九寸以上，懸於背後，則老魅不敢近…若是鳥獸邪魅，則其形貌皆見鏡中矣.[136] As this passage demonstrates, a bright mirror in the hands of a Daoist was believed to be able to reveal and exorcise demonic entities. The essential attribute for such a task, according to Ge Hong, is specular brightness.

This conceptualization of apotropaic brightness is adopted and enshrined in later Daoist accounts. As Shih-shan Huang has noted in her discussion of medieval Daoist ritual paraphernalia, "mirrors have power to discern 'truth' and quell demons."[137] In the *Taiping jingchao* 太平經鈔—a Tang dynasty digest of the *Taiping jing* 太平經,[138] the earliest extant canon of religious Daoism dating from the Eastern Han—the capacity of the righteous mind to differentiate between the good and the evil is compared to that of the bright mirror: "[the practitioner who] rectifies his heart and mind . . . would learn the method of [recognizing] the auspicious and the inauspicious just like the standard practice of seeing [auspicious and

135. Wang Genlin 王根林 et al., *Han Wei Liuchao biji xiaoshuo daguan* 漢魏六朝筆記小說大觀 (Shanghai: Shanghai guji chubanshe, 1999), 125. Mountain goblins (*chi mei* 魑魅), according to the Eastern Han scholar Fu Qian's 服虔 annotation of *Shi ji*, 1.38, "have a human face, a beast's body with four feet, and like to confuse people" 魑魅，人面兽身四足，好惑人.

136. Ge Hong, *Baopuzi neipian jiaoshi* 抱朴子內篇校釋, ed. Wang Ming 王明 (Beijing: Zhonghua shuju, 1996), 17.274; tr. Jue Chen, "The Mystery of an 'Ancient Mirror': An Interpretation of *Gujing ji* in the Context of Medieval Chinese Cultural History," *East Asian History* 27 (2004): 43. A similar story is recorded in the same text: "In the middle of the night a dozen people came in to sit across the table with Boyi . . . Boyi secretly reflected these people in his mirror, which turned out to be a group of dogs" 夜半有十餘人來，與伯夷對坐 … 伯夷密以鏡照之，乃是群犬也, *Baopuzi neipian jiaoshi*, 17.274.

137. Shih-shan Susan Huang, *Picturing the True Form: Daoist Visual Culture in Traditional China* (Cambridge, MA: Harvard Univ. Press, 2012), 222–29.

138. The *Taiping jingchao*, sometimes translated as "Excerpts from the *Taiping jing*," should not be indiscriminately referred to as a Han source as it often has been; see Barbara Hendrischke, *The Scripture on Great Peace: The* Taiping jing *and the Beginnings of Daoism* (Berkeley: Univ. of California Press, 2007); Grégoire Espesset, "Editing and Translating the *Taiping Jing* and the Great Peace Textual Corpus," *Journal of Chinese Studies* 48 (2008): 469–86. Wang Ming proposed that the *Taiping jing* reemerged and was edited in the sixth century; however, its editors were quite faithful in keeping its original shape: Wang Ming, ed., *Taiping jing hejiao* 太平經合校 (Beijing: Zhonghua shuju, 1979), 1–15.

inauspicious] in the mirror" 正心意…即自知吉凶之法，如照鏡之式也.[139] As Fukunaga Mitsuji 福永光司 has noted, this Daoist belief originated from the mythification of the physical brightness of the mirror uttered in the philosophical Daoist text *Huainanzi*.[140] Similarly, as Suzanne Cahill has pointed out, the inscriptions on many bronze mirrors cast in the first centuries were Daoist in nature and captured the rise of early religious Daoism of the Han dynasty.[141]

The apotropaic brightness of the mirror is canonized and mythicized in later Chinese history. What best exemplifies this construct is the preface of the "Mirror" chapter in the *Xuanhe bogutu* 宣和博古圖 composed in the Northern Song dynasty (1123):

> 昔黃帝氏液金以作神物，於是為鑒，凡十有五，采陰陽之精，以取乾坤五五之數，故能與日月合神明，與鬼神通其意，以防魑魅，以祛疾病 。[142]
>
> In the past, the Yellow Emperor smelted metals to make divine objects. As a result, he made fifteen mirrors in total, extracting the essence of *yin* and *yang*; and adopting the five elements of the [hexagrams] *qian* and *kun*. Therefore [the mirrors] could unite with the sun and the moon to become divinely luminous essences, and they could accord with ghosts and divinities to comprehend their minds to guard against goblins and demons and to get rid of diseases.

Although it is a much later text, the apotropaism of mythical prototypal mirrors described largely resonates with that already written in the earlier Daoist narratives such as *Baopuzi neipian*. Similarly, the idea of harmonizing the mirror with the sun and moon finds precedent in the Han mirror inscriptions enumerated above. Equally striking is that the linkage between the mythical origin of the first mirror casting and the Yellow Emperor—albeit absent in the transmitted literature from the Han—is mentioned in a mirror inscription dating to the Xin Interregnum: "The Yellow Emperor has smelted [bronze to make] this mirror" 黃帝冶竟.[143] Aside from being regarded as the inaugural designer and caster, the sage ruler himself is imbued with apotropaic power. This notion is evident in the four-character idiom, "the Yellow Emperor expels the ill-omened" 黃帝除凶, which was continually inscribed on bronze mirrors, especially those of the late Eastern Han.[144] The considerable popularity of this inscriptional verse at the time might have corresponded to the rise of Daoism as a popular religion around the same period.[145]

As the above discussion has shown, Han mirror inscriptions as excavated texts supplement and complicate the received literature by delineating a more nuanced picture of the mirror's apotropaic properties, which is predominantly premised upon talismanic icons (e.g., the Yellow Emperor) and diagrams (TLV). Nevertheless, the inscriptional evidence to some extent verifies the discourse of apotropaic brightness discussed in the fourth-century Daoist canon *Baopuzi neipian*.

139. Wang Ming, *Taiping jing hejiao*, 718.

140. Fukunaga, "Dōkyō ni okeru kagami to ken: Sono shisō no genryū" 道教における鏡と剣：その思想の源流, *Tōhō gakuhō* 45 (1973): 59–120, esp. 86.

141. Suzanne Cahill, "The Word Made Bronze: Inscriptions on Medieval Chinese Bronze Mirrors," *Archives of Asian Art* 39 (1986): 62–70.

142. Wang Fu 王黼 (1079–1126) et al., *Chongxiu Xuanhe bogu tulu* 重修宣和博古圖錄 (n.p.: Poruzhai, 1588), 28.4.

143. Zhejiang, *Gujing jinzhao*, 1: pl. 69.

144. Wang and Wang, *Zhejiang chutu tongjing*, 59.

145. For a general overview of the rise of religious Daoism and its relationship with the arts, refer to Wu Hung, "Mapping Early Daoist Art: The Visual Culture of Wudoumi Dao," in *Taoism and the Arts of China*, ed. Stephen Little (Chicago: Art Institute of Chicago, 2001), 77–93.

Fig. 5. Line drawing of bronze mirror inscribed *tian zhong ri yue qu bu yang* 天中日月去不羊; mid-to-late Western Han. After *Ningshou jiangu*, j. 15, 17

Several mirror inscriptions indeed articulate the association between a mirror's brightness and its capacity to repel the inauspicious. Take, for example, the aforementioned rectangular dressing mirror of the Marquis of Haihun. Its lengthy inscription includes the following couplet: "Receiving multicolored sunlight, it bestows good fortune and sends down the numinous. Warding off the abnormal, it refines the appearance and attends to one's side" 幸得降靈兮奉景光，脩容侍側兮辟非常.[146] This late Western Han inscription clearly suggests a causal relationship between the mirror's apotropaic power and its reflection of bright sunlight. Another mirror (Fig. 5) dated to the second or first century BCE carries a similar inscription that stresses the mirror's dependency on solar and lunar brightness for its talismanic function: "[The mirror's] inner purity is to reflect bright light. The sun and the moon in the sky repel the inauspicious" 內青以召明光，天中日月去不羊.[147] Here, the sun and moon are considered to play a pivotal role in apotropaic practice, which resonates with the description in the *Xuanhe bogutu*.

Another example, a gilded TLV mirror presumably made in the Xin Interregnum, also stresses the importance of solar- and lunar-like illumination in expelling unpropitious entities: "[The mirror's] light resembles that of the sun and moon, its texture is clear and unyielding in order to see [your] jade-white countenance and expel the inauspicious" 光象日月，其質清剛，以視玉容兮辟去不祥.[148] Its verse highlights the dual function fulfilled by the bright mirror—seeing one's face and driving away evil spirits. However, none of the above inscriptions explicitly articulates the reflection of the inauspicious in a mirror, which forms

146. Transcription and translation by Jue Guo, "Life and Afterlife of a Western Han 'Covered Mirror'," 228.

147. Liang Shizheng, *Ningshou jiangu*, 15.17. The *Ningshou jiangu* is an imperial compilation of antique bronzes completed no later than 1781 under the editorship of the Qianlong Emperor (r. 1735–1796).

148. *Hanjing wenhua yanjiu*, 2: pl. 140.

an interesting contrast with later transmitted sources. This nuanced discrepancy between transmitted and excavated texts on the apotropaic use of mirrors suggests two potentially contradictory hypotheses: first, apotropaic brightness as a form of tacit knowledge was already a common notion at the time; and second, the Han dynasty witnessed the early formation of the particular practice of apotropaic brightness that influenced that of religious Daoism, which gradually gained currency in subsequent periods.

ILLUMINATING THE WORLD

The brilliant illumination of the specular metal was exploited to illuminate the whole world, at least metaphorically. The four-character phrase, *tian xia da ming* 天下大明, usually coupled with the aforementioned *jian ri zhi guang*, literarily means that "all-under-heaven becomes greatly illuminated."[149] The appearance of *tian xia* makes the inscriptional idiom intriguing. A concept initially put forth by the Eastern Zhou thinkers and institutionalized by the Qin-Han politicians, *tian xia* or all-under-heaven is cosmological, geographical, and political.[150] By the end of the Han dynasty, the term's connotations suggested both a vast cosmopolitan empire and a political ideal that encompassed peoples across great distances regardless of their ethnic and cultural origins.[151]

However, why was such a philosophical and ideological concept about cultural hegemony and political unification used to decorate these small and personal accoutrements? A straightforward answer to this question is not easy to provide. Its sudden and frequent occurrence on Western Han mirrors might have been correlated with the establishment and consolidation of the new empire. Archaeological evidence indicates that this phraseology had already appeared on mirrors adorned with *panchi* dragons as early as the beginning of the Western Han.[152] It soon came to be one of the most prevailing inscriptions during the second and first centuries BCE and was associated with several major mirror types, including those with grass leaves, heavy concentric rings, revolving scallops, and TLVs. In a few cases, the character 明 is replaced by 陽, an interchangeable graph that denotes sunlight as well as brilliance.[153] On a mirror of the grass-leaf type, both the terms *da ming* and *da yang* occur in the same inscription, announcing, "The sunrise brings out great brightness, and the world becomes utterly brilliant" 日出大明，天下大陽.[154] Taken literally, this phrase denotes that the world illuminated by the mirror is as bright as the sun.

149. Karlgren instead translates it as "the world is very bright"; Karlgren, "Early Chinese Mirror Inscriptions," 22.

150. The concept has been critically discussed by contemporary Chinese philosophers and historians: You Yi-Fei 游逸飛, "Sifang, tianxia, junguo: Zhou Qin Han tianxia guan de biange yu fazhan" 四方、天下、郡國：周秦漢天下觀的變革與發展, MA thesis, Taiwan University, 2009; Ge Zhaoguang 葛兆光, "Dui 'tianxia' de xiangxiang: Yige wutuobang xiangxiang beihou de zhengzhi, sixiang yu xueshu" 對「天下」的想象：一個烏托邦想象背後的政治、思想與學術, *Sixiang* 2015.29: 1–56; Hsing I-tien, "Tianxia yijia: Chuantong Zhongguo tianxiaguan de xingcheng" 天下一家：傳統中國天下觀的形成, in *Qin-Han shi lungao* 秦漢史論稿 (Taipei: Dongda tushu gongsi, 1987), 3–41.

151. Mark Edward Lewis and Mei-yu Hsieh, "Tianxia and the Invention of Empire in East Asia," in *Chinese Visions of World Order: Tianxia, Culture, and World Politics*, ed. Ban Wang (Durham: Duke Univ. Press, 2017), 25–48.

152. Its inscription, stylized in rectangular seal script, is set in the band framed by the central square. The mirror has a semi-cylindrical fluted knob and a concave rim; it main zone of decoration is filled with C-shaped scrolls, a simplified form of coiling dragons; Shandong, *Jianyao Qi-Lu*, 184, 355.

153. For examples, see Shandong, *Jianyao Qi-Lu*, 197, 201, 204.

154. This mirror was excavated in Shouguang county, Shandong province; Chūgoku, "Zenkan kyōmei shūseki," 158.

The idea of lighting up the cosmological space almost disappeared in the late Western Han and rarely resurged in the subsequent period. Even when it was occasionally articulated in the Eastern Han, terms such as *si fang* 四方 (four quarters) or *tian liang* 天梁 (pillars of the sky) would replace *tian xia*. One such example, currently in the collection of the Freer Gallery of Art, reads, "[The mirror] is as bright as the sun and the moon and is brilliant enough to illuminate the pillars of the sky" 明如日月昭天梁.[155] It seems that the term *tian liang* highlights the far-reaching radiance of the mirror that resembles the sun and moon without any explicit political or ideological reference.

Compared to the exceptional *tian liang*, the term *si fang* appears more frequently in Eastern Han inscriptions. On a mirror dated to the second century CE and housed at the National Museum of China, the inscription reads, "[The mirror] is as bright as the sun and the moon, which illuminate the four quarters" 明如日月，照見四方.[156] Just like *tian xia*, the geographic and political nomenclature of *si fang*, or the four quarters, designates all directions and thereby the world.[157] As Ge Zhaoguang has suggested, it is crucial to define *tian xia* geographically by distinguishing the center and the four quarters, which respectively correspond to the central Self and peripheral Other in the collective unconscious.[158] Perhaps not coincidentally, a mirror inscription from the early third century CE resonates with this political discourse: "The *qinggai* workshop made this bright mirror to effuse *yang* energy; [the mirror] looks over and illuminates the four directions and the center" 青盖明鏡以發陽，覽睹四方昭中央.[159] Despite the fact that the wording of this couplet has markedly changed from its Western Han prototype, it conveys a very similar meaning of illuminating and seeing the whole world in the bright mirror. Time and again, these inscriptions reiterate that a mirror's symbolic illumination of the world is predicated upon its encounter with sunlight and of its resemblance to both solar and lunar radiance.

155. The rare example is a mirror with deities and beasts currently housed at the Freer Gallery of Art and carrying an inscription stating, "[The mirror] is as bright as the sun and the moon that is brilliant enough to illuminate the pillars of the sky" 明如日月昭天梁. See Umehara Sueji 梅原末治, *Shoko kokyō shuei* 紹興古鏡聚英 (Kyōto: Kuwana bunseido, 1939), pl. 8-174; see the translation by Karlgren, "Early Chinese Mirror Inscriptions," 72. Based on his reading of the *Jinshu* 晉書, Karlgren asserts that "t'ien liang is the name of two stars in a constellation of the Northern hemisphere." He further expounds that the term refers to the Tianliang Palace, as recorded in the *Xijingfu* 西京賦 composed by the historian and poet Ban Gu 班固 (32–92 CE), who was active during the initial decades of the Eastern Han. To support his argument, Karlgren quotes another inscription: "[The mirror] illuminates the palace chambers with the sun- and moonlight" 昭於宮室日月光, although that inscription does not mention *tian liang*. Alternatively, "Chūgoku kokyō no kenkyū han," the study group of ancient Chinese mirrors based in Kyoto, interprets *tian liang* as "the pillars of the sky." This rhetorical reading highlights the far-reaching radiance of the mirror that resembles the sun and moon.

156. Yang Guirong 楊桂榮, "Guancang tongjing xuanji" (4) 館藏銅鏡選輯（四), *Zhongguo lishi bowuguan guankan* 1993.2: pl. 26. For a similar example, see Hubei sheng Xiaogan shi bowuguan 湖北省孝感市博物館, *Xiaogan tongjing* 孝感銅鏡 (Wuhan: Wuhan daxue, 2014), pl. 39. An alternative term for *si fang*, *si hai* 四海 (four seas), began to gain currency during the Three Kingdoms; for example, an inscription at the time reads, "The sun and the moon illuminate the four seas, and the properly worn mirror casts light on the world" 日月照四海，正服光天下; Cao Jingjing 曹菁菁 and Lu Fangyu 卢芳玉, *Guojia tushu guan cang Chen Jieqi cang gu taben xuan bian: Tongjing juan* 國家圖書館藏陳介祺藏古拓本選編：銅鏡卷 (Hangzhou: Zhejiang guji chubanshe, 2008), 164.

157. The term *si fang* originated no later than the Shang dynasty, whereas *tian xia* did not emerge until the Zhou; David Keightley, *The Ancestral Landscape: Time, Space and Community in Late Shang China (ca. 1200–1045 B.C.)* (Berkeley: Univ. of California, 2002), 72.

158. Ge Zhaoguang, *Lishi Zhongguo de nei yu wai: Youguan 'Zhongguo' yu 'zhoubian' gainian de* zaichengqing 歷史中國的內與外：有關「中國」與「周邊」概念的再澄清 (Hong Kong: Chinese Univ. of Hong Kong Press, 2017), 135–36.

159. Wang and Wang, *Zhejiang chutu tongjing*, 234.

As the most appreciated celestial orbs, the sun and moon not only represented an aesthetic symbol of splendor but literarily illuminated the world under heaven, as nothing else would outshine the sun and moon in terms of scope and intensity. When the First Emperor of the Qin dynasty (259–210 BCE) proclaimed the vastness of his newly founded empire, he equated the world under his rule with wherever the sun and moon would shine.[160] This idea of omnipresent illumination by the sun and moon is reaffirmed in a later transmitted text, the Eastern Han scholar Ma Rong's 馬融 (79–166 CE) annotation of the *Shang shu* 尚書: "*ming* denotes the illumination of all four directions [under heaven]" 照臨四方謂之明.[161] In other words, this *ming* brightness, generated by the sun and moon, is impartial. As the *Liji* 禮記 claims, "The sun and moon illuminate impartially" 日月無私照.[162] This helps explain why Han artisans employed the same rhetoric to prize the brightness of the physical mirror and to glorify the geographic extension of the Han empire as these inscriptional verses express the same aspiration of bringing brightness to the world.

Another dimension of brightness connoted by the mirror inscriptions relates to a monarch's supreme virtue (and, by extension, his political regime) as someone who supposedly presides over his subjects with impartial clarity, as do the sun and moon. This linkage of the term *ming* with *de* 德 (virtue) had been established as early as the ninth century BCE.[163] The Han dynasty intellectuals inherited and elaborated on the notion of *ming de*. In the *Shi ji*, the term *da ming* is employed to describe the perceptiveness of Shun, one of the three legendary Chinese rulers: "The virtue of Shun is greatly bright" 舜德大明.[164] Again, in a royal edict, Emperor Zhang of Han (r. 75–88 CE) proclaimed as follows: "We hear that the virtue of an enlightened ruler is to reveal and inculcate splendidly, ensure brightness and peaceful governance, and shed light on the six darkened realms" 朕聞明君之德，啟迪鴻化，緝熙康乂，光照六幽.[165] Just as the edict extols the splendid achievement of the ruler, the *da ming* inscription and its variants, speaking on behalf of their makers and users, draw an analogy between the infinite shininess of the sun and moon—and thereupon the mirror—and the moral ideal of the benevolent ruler; as such, makers and users aspired for an ideal world blessed with great brightness.

160. A stone stele inscribed in Langya 琅邪 proclaims that "wherever the sun and moon shine, and wherever boats and carriages carry their loads" 日月所照，舟輿所載 were under the First Emperor's direct rule even though his regime was surrounded by the "barbarians" in the north, west, and south; see Martin Kern, *The Stele Inscriptions of Ch'in Shih-Huang: Text and Ritual in Early Chinese Imperial Representation* (New Haven: American Oriental Society, 2000), 28.

161. *Shangshu jin guwen zhushu* 尚書今古文注疏, annot. Sun Xingyan (Beijing: Zhonghua shuju, 2004), 1.4. In his annotation of the *Zhouyi* 周易, the Kong Yingda 孔穎達 (574–648) provides a further elaboration: "When the sun and the moon run in the middle of the course, they fully illuminate all under heaven, and eliminate every darkness, and therefore it is said to be *ming*" 日月中時，徧照天下，無幽不燭，故云明; *Shisanjing zhushu* 十三經註疏, ed. Ruan Yuan 阮元 (Beijing: Zhonghua shuju, 2009), 7.170.

162. *Liji jijie* 禮記集解, commentary by Sun Xidan 孫希旦 (Beijing: Zhonghua shuju, 1989), 49.1277.

163. A phrase inscribed on a bronze square tureen (*Bingong Xu* 豳公盨) dated to the mid-Western Zhou period (ca. 950–850 BCE) reads: "The people cared for [the king's and Yu's] luminous virtue" 民好明德; tr. Constance A. Cook, "Sage King Yu 禹 and the Bin Gong Xu 豳公盨," *Early China* 35 (2013): 69–103. In her discussion of the *Shi jing* and *Zuo zhuan* 左傳, Ardelia Ripley Hall also noted the bright mirror as a symbol of the brilliance of Heaven and the sages; Hall, "Early Significance of Chinese Mirrors," 182–89.

164. *Shi ji*, 2.81.

165. *Hou Han shu*, 3.157; the six darkened realms, *liu you*, are synonymous with *tian xia*, namely, all under heaven.

EPILOGUE

As shown by this study of the extensive corpus of Han mirror inscriptions, a variegated array of words of illumination were employed to eulogize the brightness of the specular discs cast in the three auspicious metals—copper, tin, and lead—and polished with the dark-black tin abrasive. These intricately manufactured objects were believed to have embodied the solar and lunar brilliance of the most prominent stellar bodies, which served as the sources of light and as symbolic models for the former. Due to its special association with the sun and moon, the bright mirror accrued aesthetic, moral, and religious functions that ranged from beautifying the subject to revealing emotions, warding off demons, and illuminating the world. The fact that artisans and buyers have consistently seized upon and exploited mirrors for their specular brightness sets these objects apart from other decorative arts of the Han empire.

Han mirrors were considered embodiments of the moon as well as of the sun, and the tradition of appreciating mirrors associated with the moon continued into subsequent dynasties. As Eugene Wang notes, the analogy between the moon and the mirror "gained particular currency in the eighth and ninth centuries, when the moon appears to have caught the collective fancy."[166] To Wang, the connection between the mirror and the moon lies in the depiction of a toad, a tree, and osmanthus flowers on the backs of a few Tang-dynasty mirrors. These depictions evoke an ancient iconographic convention of the moonscape in the Chinese imagination, unlike Han mirrors, which bore no references to imaginary moonscapes. Suzanne Cahill further asserts that the Chinese association of the mirror with the moon "contrasts with Japan, where the mirror was associated with the worship of the sun and the solar goddess Amaterasu, from whom the imperial line was believed to descend."[167] But the current study reveals that Han mirrors were associated not only with the moon but also with the sun.

Han mirrors were richly invested with cultural significance because of their capacity to reflect light and to offer clear images of their beholders. Aside from these personal benefits, makers and users also expressed their moral and religious concerns about the world in which they resided. Within decades, metal mirrors were abundantly manufactured and consumed across the vast Han empire, which cultivated an aesthetic that their inscriptions described as "brightness," which would enable the objects to shine on the viewer and the world and to reveal the visible and invisible in a world with relatively poor artificial lighting.[168] Through the bronze mirror as a mediator, the personal and celestial encountered and converged as one, physically and metaphorically, as epitomized in the inscription below:

內請質以昭明	[The mirror's] inner purity is to illuminate brightness.
光輝象夫日月	Its light resembles the sun and the moon.
心忽穆而願忠	My heart is tranquil and sincere,
然壅塞而不徹	although it is obstructed and not discerning.
潔清白而事君	I serve you, sir, with pureness and whiteness,
怨陰驩之弇明	but fear the darkness will conceal the brightness.

166. Wang, "Mirror, Moon, and Memory in Eighth-Century China: From Dragon Pond to Lunar Palace," *Cleveland Studies in the History of Art* 9 (2005): 42–67.

167. Cahill, "Moon Stopping in the Void," esp. 32.

168. Similar to mirrors, candles during the Han period were cherished and praised for their quality of illumination. In the extant fragment of a rhapsody written by Liu Xin, for example, the luminous property of the lamp was associated with the aesthetic property of brightness: "Bearing up this bright candle, harboring inside an icy pool. It is so bright that nothing is unseen, illuminating even the tiniest things" 負斯明燭，躬含冰池。明無不見，照察纖微, *Quan shanggu Sandai Qin Han Sanguo Liuchao wen: Quan Han wen*, 40.3b; tr. Xiaofei Tian, "Illusion and Illumination," 11.

伋玄錫之流澤	Your extended beneficence is like the glossy [mirror] coated by the dark-black tin.
恐疏遠而日忘	I fear being estranged from you, who would gradually forget me.
懷糜美之窮皚	May you hold dear my beautiful snow-white body.
外承驩之可說	May I ingratiate and please you with my outer appearance.
慕窈窕於靈景	You think fondly of my coy and comely figure in the ethereal sunlight.
願永思而毋絕[169]	May you always think of me and never separate from me.[170]

This long poem lavishly illustrates the aesthetic appreciation of specular brightness. It not only compares the reflected light of the mirror to that of the sun and moon, but also personifies the interplay between the inner essence of the metal and the outer appearance of the shining surface. It not only explicitly romanticizes the act of mirroring a presumably female figure, but also implicitly aspires to a moral ideal as pure and clean as the bright mirror. This paper does not deny the polysemy of Han mirror inscriptions. Conversely, it demonstrates the complexity of the multi-layered messages, encoded in the seemingly "meaningless" texts, which should not be dismissed as merely "decorative," especially as those verses containing words of illumination are exclusive to the metallic medium. Sabine Melchior-Bonnet considers our contemporary mirrors to be "the matrix of the symbolic," accompanying the contemplation of the self.[171] Her statement also holds true for the mirrors of the Han dynasty, when its people were intensely attentive to seeing themselves and their world through these often petite yet brilliant discs that could illuminate the obscure with the empowering light of the sun and moon.

In addition to the aesthetic efficacy of specular brightness, this paper also aims to reflect on the complex relationship between inscriptional and transmitted texts on the same *thing*—the mirror, which spurred the imaginations of early philosophers and commoners alike. The versified and vulgarized inscriptions, pithy or lengthy, do not simply corroborate and amplify the philosophical conceptualization of the bright mirror and mirroring; rather, they supplement and complicate our understanding of the aesthetic judgment and experience of specular brightness in the early Chinese empire. While the received texts unanimously use the logograph *ming* as a modifier of the mirror, excavated inscriptions exhibit a much more vibrant and poetic scheme of "brightness" by adopting a wide variety of words of illumination. While the received texts dwell upon the moral role of the reflective mirror as a tool for self-inspection, the excavated inscriptions also exclaim the beauty of their reflected light and the pleasure of illuminating oneself, and by extension, the whole world. While the received texts elaborate on the mirror's apotropaic function of revealing the true nature of demons and goblins, the excavated inscriptions have been surprisingly ambiguous about this efficacious attribute. Both the received texts and the excavated inscriptions promise the impartiality and luminosity of the mirror—only the latter expounds on its semiotic link to the sun and moon.

169. Li Ling 李零, "Du Liang Jian cangjing sipian: Shuo Hanjing mingwen zhong de nüxing futishi" 讀梁鑒藏鏡四篇：說漢鏡銘文中的女性賦體詩, *Zhongguo wenhua* 2012.1: 30–39.

170. Akin to the bronze texts of the preceding Warring States period, mirror inscriptions from the Han frequently contain rhymes that enhance the lyrical quality of these compositions. This inscription, which imitates the *sao* 騷 style, is no exception. Karlgren made the first attempt to translate this inscription into English; see Karlgren, "Early Chinese Mirror Inscriptions," 25. This current translation is, however, primarily based on Li Ling's interpretation in "Du Liang Jian cangjing sipian," 30–39.

171. Melchior-Bonnet, *The Mirror: A History* (New York: Routledge, 2001), 4.