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The fine technical quality and ready visual appeal of the arts created during the period of Mongol sovereignty in Asia mean that these buildings and objects have long been admired and collected, although critical assessment of them is more recent. This chapter offers an overview of this copious material production and an interpretive analysis of the various ways to approach it and some of the problems therein. The chapter begins with a brief regional survey of the works produced under the united Mongol empire and the four post-dissolution khanates before attending to discussion of the range and nature of sources including the preservation of art and architecture, commodity and exchange, and the development of a new material world and visual language during this period. Co-authored, this chapter presents a fully integrated study of visual sources for the Mongol empire, one spurred by the synchronic methodology of this volume, and an implicit challenge to the disparate state of research into the regions and disciplinary fields treated here.

Chronological and Geographical Parameters

The chronological and geographical span of this essay is broad, and the bibliography about it correspondingly large and growing rapidly.[1] This section of the essay opens with a discussion of the period of the united Mongol khanate in the early thirteenth century, when Chinggis and his immediate descendants controlled Mongolia and adjacent regions before the establishment of the Yuan dynasty in 1271 under Qubilai (*r*. 1260-

94). In the more traditional dynastic view of history, this period is sometimes designated pre-Yuan or pre-dynastic, thereby emphasizing its regnal and Chinese aspects, a somewhat outdated view slowly being replaced by one that emphasizes maker and materials over ruler and patron, active agency over passive acceptance or the nefarious and vague concept of "influence."[2]

In terms of artistic production, this early period is marked by the forced transfer of artisans from one region to another, usually overland. The Mongols appreciated the value of craft, and following their campaigns of subjugation and conquest, they often spared artisans, especially weavers and metalworkers, who were sent back to the Mongol homeland. After the submission of Herat in 1221, for example, the head of the weavers' guild and one thousand weavers of gold brocade were transferred to Besh Baliq, the Uyghur summer capital on the northern slopes of the Tian Shan northeast of Urumqi.[3] The artisans' quarters in the Mongol capital at Qaraqorum contained metalsmiths, potters, weavers, and others drawn from diverse regions including Tibet, Khwarazam, and elsewhere in the West. Under Ögödei (*r*. 1229-41), these craftsmen were then dispatched to regional centers under the direction of Secretariats at such sites as Yanjing, the former Middle Capital of Jin (present-day Beijing), and the silkweavers from Herat were even sent back to their homeland.[4] This movement of artisans therefore transformed the nature of production, introducing such skills as weaving cloth of gold.

This essay also considers works fashioned after the dissolution of the empire following the death of Möngke (*r*. 1251-59) under the Yuan and its neighboring regions

in East Asia and under the three khanates in West Asia. The latter three formed a group from the standpoint of faith in that they all adopted Islam as the state religion: the Chaghadayids officially under Mubarakshah (*r*. 1266), the Ilkhanate under Ghazan in 1295, and the Golden Horde under Ozbek (*r*. 1313-41).[5] In contrast, Tibetan Buddhism in particular flourished under the compendious patronage of the Yuan khans. Nevertheless, these four khanates still retained a collective Mongol identity not only on the grounds of geography (all ranged along the Eurasian steppe) but also lineage (all four were founded by descendants of Chinggis). The Chaghadayids (1260-1678), descendants of Chinggis's second son Chaghaday, controlled Central Asia, while the Golden Horde (1260-1502), descendants of Chinggis's eldest son Jochi (who had predeceased his father), controlled the Qipchaq steppe in southern Russia. The Yuan and its Ilkhanate (sub-khanate) (1260-1335) were both governed by descendants of Chinggis's grandsons through his youngest son Toluy: Qubilai who ruled as khaghan from Yuan China and his older brother Hülegü who controlled Iraq and Iran.

Whereas in the period of the united khanate, the movement of artisans had engendered shifts in production, in the later period, after 1260, artistic change arose from a variety of factors. One of these was certainly the exchange of goods, particularly following the development of extensive maritime trade from southern China to Japan and the Yuan's vassal state of Korea, as well as through Malaysia to India and the Gulf.[6] Artisans and scribes were also quite often loaned, for instance from the Korean court to participate in court Buddhist *sutra*-writing projects in the Yuan capital. Tribute, goods, and chattels could also include artisans and women. Again, in the case of Korea, girls

and young women were demanded by the Yuan for placement in the palace at Dadu.[7] One of these rose from her position as a serving girl to become the late Yuan empress Qi (Korean: Ki; 1315-1369), consort of the last Yuan qan Töghön Temür (*r*. 1333-70). As yet there has been little recognition of how intermarriage either inside or outside the Yuan royal family may have prompted artistic change. Intermarriage in China and Korea would generally seem to refer to Mongol and *semu* men taking local wives. Archaeological discoveries, such as those of murals in provincial tombs across north China, including Shaanxi and Shanxi, can be expected to throw more light on this situation.[8]

Travelers such as Marco Polo and Ibn Battuta or advisors such as Bolad Aga certainly moved across the region,[9] but during the later period there is little evidence for the direct transfer of workers at royal command, although some artisans may have migrated to supply new markets, as in the case of Persian potters who collaborated with Chinese locals at Jingdezhen during the mid-to-late Yuan period to produce underglaze cobalt blue porcelains. Furthermore, the direction of most artistic exchange changed: whereas in the earlier period workers had been brought overland to the Mongol courts in the east, under the western khanates most luxury goods (but certainly not all ideas and products) seem to have moved from East Asia to the west, although this model is likely to come under continued scrutiny as more evidence of Yuan-Ilkhanid ties emerge.

The Nature of the Sources

First-hand study of the material culture from this period, whether buildings or portable objects, is particularly important not only because these works are so fine and so plentiful but also because, outside the Yuan, written sources about them are relatively sparse. In contrast to the tradition of connoisseurship in China, we have few, if any, contemporary (or even later) artistic assessments of these objects like the titles, descriptive poems, colophons, and others inscriptions recorded in inventories and critical texts or added to handscrolls by such luminary Yuan painters as Zhao Mengfu (1254-1322), his contemporaries, and his followers including Zhou Mi (1232-1298), Li Kan (1245-1320), and Tang Hou (1255/62-before 1317).[10] The "veritable records" of reigns in the *Yuan shi* contain rich seams of information about the tribute wares that envoys presented to the Yuan court; as such objects have never been part of the canon of Chinese scholar art, this evidence remains to be systematically mined. Occasionally court and canon have coincided. The court official Wang Yun's *Shuhua mulu (Catalogue of Calligraphy and Painting)*, compiled in 1276, lists the pick of the former Southern Song imperial collection at the moment it was transported from Hangzhou to Dadu as booty.[11] By the mid-Yuan period, however, a wide range of "high" cultural and connoisseurship activities did take place at the Yuan court, such as sponsorship of printing projects, the 1323 'elegant gathering' of the Grand Elder Princess Sengge Lagyi (or Ragi; c. 1283-1331), sister of the khan Ayurbarwada (Renzong; *r*. 1311-20), and also, under Wenzong (*r*. 1328, 1329-32), academic meetings and viewings at the Kuizhangge (Pavilion of the Stars of Literature), which evaluated old masterworks of calligraphy and painting in imperial and elite collections. These not only defined the Yuan cultural

agenda but also showed the imperium in a positive light, and also seem to have had a direct impact on visual motifs in wider circulation on ceramics and other media.[12]

Still, these sources are uneven and, outside China, sometimes unique, such as the description of making lusterware in the treatise on gems and minerals by the historian Abu al-Qasim Kashani, a member of the most famous family of luster potters in Iran, which is a more of a technical how-to manual than any sort of aesthetic evaluation.[13] Judging the visual reception of these objects is all the more difficult since many have been removed from their original context, as with paintings from the western khanates that have been detached from manuscripts and mounted in albums or even framed by a museum to obscure the surrounding text.[14] Hence, most of our information must come from close scrutiny of the works of art themselves, supplemented by occasional references in annals, travelogues, and other contemporary written sources.

For China, one also has to reckon with the propensity of post-Yuan collector-connoisseurs toward the editing and reframing of artworks in the process of their transmission, for example by adding, removing or adulterating titles, seal impressions, and inscriptions either on the artwork or in post-scripts, and through remounting. Even beyond perennial issues of authenticity, scrolls of calligraphy and painting of Yuan origin pose particular problems in Chinese art history arising in part from the chauvinist backlash of the native Chinese Ming regime which followed the Yuan. Traces of non-Chinese interventions in art, such as seals in Mongol (Phagspa) script, have at best puzzled connoisseurs, while there is no knowing what proportion of the material record was destroyed in the aftermath of the Yuan. Japan remains an important repository of

Yuan art, notably Buddhist art, as in case of the Southern Song painter Liang Kai's *Li Bai Chanting While Strolling,* which bears a large seal in Mongol script,[15] and of some schools and practices largely choked off in China proper. A fine long handscroll entitled *Episodes from the Career of a Yuan Official*, in the Nelson-Atkins Museum in Kansas City, which has one scene that provides us with the rarest glimpse in painting of the Yuan palace city gate (Chongtianmen), has only recently been re-ascribed by the architectural historian Fu Xinian to the late Yuan period, having been attributed by early Ming connoisseurs to the late Northern Song (early twelfth century), possibly to ensure its survival.[16]

New forms and types of visual sources become important. One added to the repertory in the western khanates, notably in Iran, comprises illustrations in codices. Illustrated books had been produced earlier in the region, but in this period, particularly under the patronage of the Ilkhanid court and its successors such as the Injuids in Fars province in southwestern Iran (*c.* 1325-53) and the Jalayirids in Iraq and Azerbaijan in the northwest (1340-1432), illustrated books emerged as a major medium of artistic production.[17] To judge from the oblong shape of the paintings and abrupt truncation of the figures at the margins in them, Chinese handscrolls and prints may have provided a model for the format of these early illustrations such as those in the copy of the *Jāmiʿ al-tāvarīkh* (*Compendium of Chronicles*) made in AH 714/1314-5 CE under the auspices of the author, the Ilkhanid vizier Rashid al-Din.[18]

Woodblock printed books certainly were the source of text and illustrations for Rashid al-Din's medical compendium, *Tansūqnāma*: in the preface, he praises the

quality of the Chinese printed books he is translating.[19] For the *Jāmiʿ al-tāvarīkh*, he may also have had sight of Chinese popular illustrated woodblock-printed books of a type called *pinghua*, which featured illustrations in a rectangular frame in the top quarter of each page above the text. The impact of these early-fourteenth-century illustrations in China is evinced by the appropriation of a scene depicting the story of "Guiguzi descending the mountain" from a 1321-23 *pinghua* ("plain speech") text, *New Woodblock Fully Illustrated Pinghua of Yue Yi Planning [the Conquest] of Qi*, for a well-known mid-fourteenth-century blue-and-white vase in a private collection (fig. 01).[20] Further similar appropriations of print imagery by ceramic decorators are likely to be discovered.

In this period in West Asia, illustrations were still inserted into and subsidiary to the texts that they illustrated. The written text and the calligrapher were more important than the illustration and the painter, but this balance shifted over the course of the fourteenth century. Size shows that illustrations increased in importance over time. The individual painter also became more important, to judge from signatures and later histories of the subject such as Dust Muhammad's account of past and present painters, composed in AH 951/1544 CE as the preface to an album of paintings, drawings, and calligraphic exercises: the first signed Persian painting to survive is that by Junayd in a codex of Khwaju Kirmani's three poems dated AH 798/1396 CE (British Library, Add. 18113, fol. 45b); the Safavid chronicler Dust Muhammad moved to a historical record of events beginning with the reign of the Ilkhanid ruler Abu Saʿid (*r*. 1317-35).[21]

These manuscript illustrations from the Ilkhanate thus differ from Chinese media in various ways. At least since the eleventh century, members of the educated elite in China had been inscribing and signing scrolls, either as authors or connoisseurs, scrolls that could measure several or many meters in length and in which calligraphic inscriptions could be inserted on, around, or after the painting. The habit of appending critical colophons (on the mounting or in the backing paper) after the main work, be it of calligraphy or painting, became ingrained in the early Yuan period, as exemplified by the practice of Zhao Mengfu, whose colophons were privately solicited or royally commanded.[22]

Furthermore, in the Islamic lands two separate types of specialists usually compiled illustrated manuscripts—calligraphers who wrote with reed pens and painters who used brushes—in contrast to China where the same person frequently did both using similar implements. The illustrations in these Ilkhanid manuscripts sometimes seem generic or emblematic rather than specific and personal, and attempts to ferret out hidden political or social commentaries implied by the painters, in the way that scholars have done so well for Yuan painting, are sometimes torturous and not always convincing. For the early Yuan period, for example, insect themes in paintings like *Eight Insect Themes* (Palace Museum, Beijing) and *Fascination of Nature* of 1321 (British Museum) have been seen to highlight how beauty in nature is a veneer, scarcely obscuring the violence of the food chain in the insect world and offering a point of departure for artistic and poetic reflections on the predatory character of social hierarchy.[23]

The concept of the arts in China as ancient tradition in transmission and the role of scrolls as potential bearers of seal impressions and inscriptions of collectors and connoisseurs turns up some illuminating anomalies at the intersection of the Mongol empire with China's art history. Not only did some of the most famous old masterworks belong to non-Chinese collectors, like the *Admonitions of the Court Instructress (Nüshi zhen tu)* picture-scroll (British Museum) which bears a seal of a certain Muslim official named ʿAli, but inscriptions turn up unlikely connections between connoisseurs: the *semu* calligrapher Kangli Naonao (1295-1345), for instance, commented on a scroll-painting by the southern Chinese scholar-official Ren Renfa (1254-1327) that the two men were related by marriage.[24] In addition, women like the princess Sengge Lagyi (Ragi), were among the prominent collectors and patrons of Chinese calligraphy and painting. Of particular interest are the princess's interactions with Chinese-educated scholar-officials and her patronage of a trio of southern Chinese, the painter Wang Zhenpeng, and the calligrapher-connoisseurs Feng Zizhen and Zhao Yan.[25] A painting like Wang Zhenpeng's *Boya Playing the Zither* in the Palace Museum, Beijing, made for the princess, exemplifies this interstitial moment. Extraordinarily realistic and highly keyed to the senses, it is executed in consummate Chinese monochrome ink-outline technique (*baimiao*, literally "plain drawing"), with the subtlest of shading. It confronted head-on issues of who is qualified to appreciate Chinese culture and take responsibility for transmitting it.

The adoption of Islam by the three western khanates also opened up another source of information about the visual culture produced there: inscriptions in Arabic

script on the works themselves. These texts often provide a key to dating or localization. A good example is the compound silk textile inscribed with the name and titles of the Ilkhanid sultan Abu Saʿid (fig. 02).[26] The official *ṭirāz* inscription shows that it was woven in a state factory, mostly likely at the ruler's capital Tabriz, after he had assumed the title of *bahādur* in 1319 but before his death in 1335. The inscription thus provides at least one fixed point for the localization of this type of lampas-weave with silk and gold produced in many areas of the region and known as *nasīj* in Persian, *nakh* in Arabic, *nashishi* in Chinese, and *panni tartarici* ("Tartar cloths") in Italian sources.[27] The multiple terms used for this type of textile not only exemplify the polyglot nature of the period but also illustrate the contemporary development of lexicography, attested by multi-lingual dictionaries such as the Rasulid Hexaglot.[28] This lexicographical advance is taken one step further in the unique copy of a dispersed manuscript entitled *Muʾnis al-aḥrār fī daqāʾiq al-ashʿar* (*The Free Men's Companion to the Subtleties of Poems*) completed at Isfahan in AH Ramadan 741/February-March 1341 CE, which contains a rare and curious poetic device matching individual words with images that function like visual glosses.[29]

In addition to providing fixed dates for individual works or style, dated Arabic inscriptions on works of art can also help us to go further in contextualizing the transfer of objects, styles, and motifs between the khanates. A good example here is a large flat dish with articulated rim dated AH 667/1268-9 CE (fig. 03).[30] Made of fritware painted in luster over an opaque white glaze, it can be localized by its technique to the city of Kashan, the major site where lusterware was produced in Iran. The Persian potter working in central Iran used local materials but adopted the shape from Song (960-

1279) Chinese celadons made at the Longquan kilns in Zhejiang and porcelains produced over the same period at Jingdezhen in Jiangxi. To decorate the dish, he laid out a geometric interlace of overlapping bands that is typical of works produced in the Islamic lands but inserted into it lotus flowers typical of Chinese wares, perhaps known through the intermediary of textiles or other arts such as lacquer or even vernacular painting and printing. The buds on the luster dish seem to open as they progress from center toward the rim, itself decorated with a floral scroll. This combination of motifs shows the intermixing typical of the period, and the date on the lusterware dish further helps us to see how early these east Asian motifs had been adopted in the western khanates, even before the incorporation of the Southern Song into the Yuan realm in 1276-79.

Lusterware is one of the two most expensive techniques used to decorate ceramics in Iran (the second is the other overglaze technique of enameling or *minā'ī*, also produced in Kashan). But ceramics are still a middle-class product, for the elite ate off of silver and gold.[31] What this luster dish dated 1268-9 proves is that already by the third quarter of the thirteenth century not only were Chinese wares available to potters in Kashan but also that the taste for their forms and designs had spread beyond the Mongol court to create significant local demand. This market was quite widespread, as shown by the large number of similar floral motifs used on contemporary luster tiles, such as the dado of star and cross tiles dated in the early 1260s that decorated the Imamzada Yahya at Varamin.[32] In other words, Chinese wares must have been widely available in Iran already in the early thirteenth century before the official founding of the Ilkhanate in 1256 and the production of this luster dish in 1268-9. From the

continental perspective of the Mongols, one overarching both Persian and Chinese cultures, the phenomenon of blue-and-white ceramics in the second quarter of the fourteenth century marks the culmination of this trend, even if that occurred at the twilight of the Yuan and Ilkhanate imperia.[33]

Sufis, typically the institutional types but occasionally the more extreme, anti-nomian mendicants, were often responsible for the spread of Islam in the western khanates, where Mongol rulers and their courtiers typically adopted Islam under the tutelage of learned shaykhs.[34] The Sufi approach to Islam fit with the syncretistic practices of the Mongols better than the more orthodox Islam of theologians, but the adoption of this approach to Islam in the western khanates in turn had a major impact on the architecture and art of the region. Rulers were often interred in tombs near their mentors, as with the Chaghatayid khan Buyan Quli (*r.* 1348–59), who was buried next to the shaykh, poet, and theologian Sayf al-Din Bakharzi (*d.* 1261) in a shrine complex outside Bukhara.[35] The Ilkhanid sultan Uljaytu brought the body of the more popular and somewhat bizarrely dressed shaykh Baraq Baba, who had probably converted the ruler to Shiʿism, to his capital of Sultaniyya, where the shaykh's tomb tower and a later hospice for Sufis (*khānaqāh*) are the only buildings that survive from the period other than the ruler's majestic tomb (fig. 04).[36] Uljaytu's son Muhammad Tayfur was buried at the shrine of the famous mystic Bayazid Bastami (*d*. *c*. 877) in northern Iran.[37]

One result of such court patronage of Sufism was the growth of shrine complexes into "Little Cites of God," such as the one at Ardabil in northwestern Iran around the grave of the Sufi shaykh Safi al-Din, eponymous founder of the Safavid

dynasty (*r*. 1501-1722).[38] This development is so pronounced that shrines replace congregational mosques as the major type of new religious buildings in most of the western khanates, and the objects endowed to them some of the most splendid. Yet the information offered by their buildings and the objects donated to them in documenting the history and development of Sufism in this region is often overlooked. The domed tomb also became the standard grave marker for important Muslims, not only in the western khanates, as in the one dated AH 771/1369-70 for the Chaghatayid Tughluq Timur at Almaliq, but elsewhere in north China, as in two anonymous tombs at Guyuan in Hebei and outside the southwest wall of Karakhoto.[39]

Mongol patronage under the Yuan extended to temples and official buildings across China, Korea, and Tibet, while the influx of foreigners spurred a variety of religious buildings, from temples and mosques to grottos housing religious sculptures. The architectural fabric of Yuan Dadu was documented by the Chinese scholar Tao Zongyi in the late Yuan period and again by Xiao Xun in 1396 prior to the planned destruction of the palace complex in the early Ming period in preparation for the re-establishment of the capital at Beijing by the Yongle emperor (*r*. 1403-21), but those plans were carried out so effectively that only the grid layout of the city underpins modern Beijing.[40] The exception is the White Pagoda Temple (Baitasi) built late in the late thirteenth century, to the west of the palace city.[41] Its massive white stupa (*ta*), still clearly visible on the Beijing skyline, is all that remains of dozens of imperially-sponsored temples built and liberally furnished with bronze and wood statues, textiles, and lacquers by the Nepalese artist and architect Anige, doyen of the early Yuan imperial art

world and head of Qubilai's supervisorate of all artisans. Much of this material could have been expected to throw light on the "Himalayan style" employed by the Yuan court to house relics and render figures of the Buddhist pantheon.

Visually, Yuan architecture must be reconstructed from disparate survivals such as the Cloud Terrace (Yuntai) of 1342-45, originally a platform for three Tibetan-style stupas, at the strategic Juyongguan pass on the Great Wall just north of Beijing (fig. 05). It exemplifies the indebtedness to the "Himalayan style" in what could be called Yuan Buddhist public art as well as being a rare surviving example of a sophisticated multi-lingual inscription practice. The official in charge of the monument, and the person who also performed the consecration ritual, was an Imperial Preceptor (Dishi), Kun-dga'-rgyal-mtshan (1310-1358), a member of the leading family of the Tibetan Sa-skya-pa order.[42]

There are some other buildings in remoter spots: the Temple to the Northern Peak (Beiyuemiao) at Quyang in Hebei, which features a hipped roof construction fronted by a large ritual platform and suggests what Yuan palace buildings, on only a slightly large scale, might have looked like; other Daoist temple complexes like the one at Yonglegong, which has large-scale murals and was probably imperially sponsored; and the celestial observatory (Guanxingtai) at Dengfeng in Henan, originally built by the Chinese court astronomer Guo Shoujing.[43]

The Islamization of the western khanates also had implications for the preservation of art and architecture. Many of the buildings and objects blatantly associated with other religions were abandoned or even destroyed. There are therefore

few buildings or other works that attest to the many other religions practiced in the western khanates,[44] and those that do survive are mainly the result of abandonment and obscurity, as with the incomplete rock-cut structure at Viar, some thirty kilometers south-southeast of Sultaniyya in Iran, which may have been a Buddhist monastery.[45]

In theory (if not always in practice), the new converts to Islam adhered to traditional Muslim burial practices, especially to the regional tradition of domed tombs visible from afar. Unlike Chinese burials, these tombs are not hidden below ground, so few have been discovered recently, in contrast to the spate of archeological finds in Mongolia and China. An example of the latter is the unearthing in 2008 of a subterranean domed tomb dated to 1308 for a provincial official or gentry couple at Hongyucun in Xing County, Shanxi Province.[46] Although the tomb had been emptied of its contents (and there were surely many), the murals depicting a domestic setting were intact and included trompe l'oeil effects, both for architectural features like bracketing and cogging and for decorative furnishings like latticed doors and scrolls hanging on the walls, the whole laid out using geometric mirroring effects. Buddhist and Confucian values were on display in the depiction of a Buddhist monk and conventional scenes of Confucian filial piety, while status was projected via the images of spirited horses, peony-and-rock and lotus-pond scenes, and balustrade and landscaped gardens peopled with servants preparing refreshments.[47]

By contrast, Muslim tombs do not have murals with idealized depictions of their occupants surrounded by their accouterments. Nor are Muslims theoretically buried with grave goods, whether contemporary objects or precious heirlooms, although to

judge from finds from the Qipchaq steppe and elsewhere, not all Muslims actually adhered to this practice.[48]

Therefore, many objects known from across the empire are fragmentary or chance finds. In addition, where these discoveries are hoards, like the mid- or late-Yuan cache of ceramics found in 1980 at Gaoan in Jiangxi Province, it is not always possible to reconstruct any social context. The construction boom in China since 1980 has led to many discoveries, but it has also meant that even where the contents remained in situ, any recovery has been in the form of salvage archaeology under time constraint. The ceramics that do survive from the period are often recomposed from shards of objects that had been broken and discarded.[49] Some important finds at Jingdezhen have been pieces from wasters found in rubbish pits, for example at the Red Guard Cinema kiln-site.[50]

Similarly, textiles were literally worn to death. Most of the best and largest examples were preserved elsewhere, whether in Christian burials or church treasuries in the West where they were used to wrap bodies or relics (as was the case of the Abu Saʿid silk, fig. 02) or in Buddhist monuments in the East (fig. 05). Following the dissolution of the monasteries in Tibet during the late twentieth century, many of these textiles and other objects, notably gilt-bronze sculptures, have emerged on the art market, such as those from the Densatil Monastery.[51] A rare Buddhist *kesi* tapestry, *Mandala of Yamantaka-Vajrabhairava* in the Metropolitan Museum of Art (1992.54), dateable to 1330-32, is testament to the continued Yuan royal patronage of the arts in the Newari or Indo-Tibetan style into the mid-Yuan period and beyond (fig. 10). Along

the lower edge of the mandala, their identities confirmed by Tibetan inscriptions (the Chinese inscriptions may been removed), are donor portraits of two Yuan qans, Tugh Temur (Wenzong*, r*. 1328-1332) and his elder brother Khosila (Mingzong; *r*. 1329) and their respective consorts, Budashri and Babusha, who both wear the tall hats, known in Mongolian as *bughtaq* and in Chinese as *gugu guan* (see fig. 09).[52]

From 1275, shortly after its founding, Dadu became one of the main centers for the production of textiles likely made on commission for the Mongol elite, including "cloth of gold," after Uighur weavers had been moved there from Besh Baliq. Two other production sites nearby were populated with Muslim, local Chinese, and also Central Asian weavers, providing a rich environment for the exchange of ideas and practices, all close to the cultural heartland of Mongolia.[53] Surviving mainly in fragments, textiles of the "cloth of gold" type are technically highly accomplished in that their designs and techniques combine features from east and west. Designs might feature motifs of Iranian origin (winged lions, griffins, falcons) set in ornamentation more typically seen in China (cloud patterns). Similarly, the technique might comprise single warp silk threads, as seen in China, crossed with gold wefts in pairs, as found in eastern Iran.[54] Such luxury textiles had ready use in the ceremonial dress of members of the Mongol elite, if not also in the suits of silk clothing presented by that elite to officials and envoys for banquets and court appearances.

Despite sometimes lacking provenance, these textiles and other objects provide a welcome supplement to the corpus preserved in shrines, for many of these latter sites are difficult of access or have been stripped of their goods.[55] The shrine of Shaykh Safi at

Ardabil, for example, was the location of one of the world's largest collections of blue-and-white porcelains, over one thousand vessels, many now moved to the National Museum in Tehran, a building that was closed for a decade, in a country itself difficult of access.[56] Another large collection in the Topkapı Palace Museum in Istanbul is now a major tourist site but one that does not always welcome foreign scholars and where access to storage has also been restricted for many years.[57] Early monographs on these two collections, which may have originally belonged to the same royal collection in Iran, are therefore all the more important, as are early photographs of temple and monastery collections in Tibet. The objects that do appear on the art market without attested provenance are in themselves problematic, for many national museums are financially unable or legally prohibited from acquiring such works of art, which often end up in the hands of private museums or wealthy collectors attracted by the very allure that made these objects so popular in their own time of manufacture.[58]

Commodity and Exchange

The buildings and objects from the khanates illustrate the active process of commodity and exchange described by Thomas Allsen and attest to a shared material culture, one that is understood best by comparing and combining the various sources of information from the different regions.[59] All the khanates, for example, founded new capital cities that embodied the new regime.[60] Thus under Ögödei, the site of Qaraqorum was transformed from a military camp and commercial and handicraft center to a capital city with permanent halls. In 1256 Möngke ordered his younger brother Qubilai to found a

city at Kaiping Fu (now Shangdu in the Inner Mongolian Autonomous Region), and in 1267 Qubilai broke ground for another new capital at Dadu/Beijing, just to the north of the Jin capital Yanjing (Zhongdu), where he held his first court gathering in the spring of 1274.

The construction of the new Yuan capital, Dadu, was the largest of these undertakings. The new city incorporated part of and recycled building materials from the former Jin capital, but to ensure adequate water supply the main city was sited to the north. This relocation called for extensive rezoning of land around the capital for pasture, agriculture, and hunting, and the Grand Canal was even extended right into the city. Symbolism mattered too. Between 1276-79, Qubilai had the Song royal family brought to reside there, ostensibly for their own protection, lest they unwittingly or otherwise have become figureheads for dissent in the south. In the mid 1280s, the Song royal palace in Hangzhou and the royal tomb precinct to the south were scandalously targeted for appropriation by Buddhist officials, chief among them the notorious Yang Lianzhenjia, who was intent on driving through a triumphalist building program. Due to local outrage, further members of the Song royal family were brought north on that occasion for the same reason as after the fall of the Song. There clearly was a distinction between treasures obtained through wanton appropriation and as spoils of war. Exemplifying the latter, in 1276, as noted, Qubilai had allowed the pick of the Song imperial art collection to be inventoried by the scholar-official Wang Yun in a *Catalogue of Calligraphy and Painting* (*Shuhua mulu*), when it was brought north.[61] These scrolls of old-master calligraphy and painting and those in the collections of state institutions like

the Hanlin Academy could subsequently be viewed by officials and court artists and contributed thereby to the development of Dadu's cosmopolitan culture.

Some of the objects unearthed in modern times from Dadu are today housed in the Capital Museum, but remnants above ground are few: in addition to the White Pagoda Temple by Anige, they include the Rainbow Bridge close to the Wuyingdian paintings gallery hall in what is today the Palace Museum and a few short sections of the city wall that were not dismantled after the founding of the PRC in the mid-twentieth century.

Many of the western khanates in turn emulated the Yuan practice of new imperial cities on a smaller scale: the Ilkhanids established them at Takht-i Sulayman (more of a seasonal hunting camp) and at Sultaniyya in northwest Iran (fig. 04); the Golden Horde at two sites on the Volga called Saray (one by Batu designated Old Saray/Selitrennoe, the other by Berke designated New Saray/Saray Berke/Tsarev); and later the Timurids at Kish/Shahr-i Sabz and Samarkand in Central Asia.[62] By combining physical and literary sources, one can paint a fuller picture of the urban development of the period, as Terry Allen did with Herat, a city in Khurasan province in eastern Iran that was substantially rebuilt by Timur's son Shahrukh (*r*. 1409-47).[63]

To judge from the remains, these new cities shared certain physical features, some again adopted from prototypes in China, where the palace city was nested inside the imperial city inside the city itself, which was built to a grid system. In Dadu, the sovereign's gate was the middle one of five in a massive south-facing gated entrance (Chongtianmen), as depicted in a view looking north in a scene from the narrative

painting, *Episodes from the Career of a Yuan Official* (fig. 07), and showing a sequence of palace roofs receding to the north over the top of the main gate. In the western khanates, the citadels were large walled squares with bastions and a major north-south axis leading from the main entrance on the south. This was the case not just for major Ilkhanid sites such as Takht-i Sulayman and Sultaniyya, but also minor settlements such as Hasanlu Tepe.[64] The internal layout and organization of the tents within the capital cities, the so-called Mongol *ordu* (encampment), may also have derived from a Liao model known from Northern China.[65] At any rate, in Dadu, Qubilai commanded steppe grasses to be planted in these open spaces in the palace city to recreate the steppe landscape, an effect complemented by landscapes on the walls and green-painted floors within the palace buildings. Steppe landscape paintings mounted on screens are recursively included as "paintings within paintings" in scenes set in the Yuan palaces, as is seen in the illustrations to *Yinshan zhengyao* (*A Soup for the Qan*), a woodblock-printed dietary manual presented to the throne in 1330 by the *semu* court physician Husihui and his colleagues.[66]

None of these cities survives intact, but combining the information from various sites in the western khanates allows us to sketch the range of standard building types in them, such as Uljaytu's tomb at Sultaniyya (1303-20) and the Ilkhanid summer palace at Takht-i Sulayman (1270s) along with Timur's palace Aq Saray at Kish/Shahr-i Sabz (1379-96) and his congregational mosque, sometimes dubbed the Mosque of Bibi Khanum, at Samarqand (1398-1405).[67]

To this standard repertory of structures, one should add more unusual types, such as observatories. Hülegü founded one on a hillside north of his first capital at Maragha in northwest Iran.[68] Its size (the large circular building for the meridian arc or sextant measures 45 meters in diameter), multiple buildings (five smaller circular units, a foundry to fabricate astrological instruments, and several other multi-room buildings identified tentatively as a madrasa, library, etc.), and fancy decoration (luster and glazed tiles) bespeak its significant funding. It was the prototype for the better-known one that the Timurid ruler Ulugh Beg founded at Samarkand in 1420, but it seems to have had no impact on the Yuan observatory begun in 1279 under Qubilai in Haocheng in Dengfeng County, Henan, at least to judge from the main building there, a brick observation tower for observing the stars (Guanxingtai) that housed the tall gnomon (Gaobiao) used to regulate the calendar.[69] The extant observatory on the Dadu city wall in Beijing is an early modern reconstruction. Astronomers and their books and instruments may have moved between Iran and China, but construction techniques and forms did not.

One also gets a sense of the styles of court life and dress shared among the khanates by combining several sorts of evidence from different regions. The combination of Mongolian, Chinese, Persian, and other elements in Yuan court cuisine, as described in *Yinshan zhengyao* (*A Soup for the Qan*), is an image of that plurality, while the extensive treatment in that manual of alcohol poisoning gives visual form to the effects of Mongol feasting culture.[70] The best visual depictions of Mongol feasting, encampments, and campaigns are the illustrations detached from early fourteenth-century copies of Rashid al-din's *Compendium of Chronicles*.[71] Some paintings (fig. 08)

show khans enthroned with their consorts.[72] In China, the Mongol rulers and consorts were the subjects of official portraits but they were no less significantly depicted out hunting, as in the impressive hanging scroll dated 1280 in the National Museum, Taipei, attributed to Liu Guandao, *Qubilai Khan Hunting*, which shows him accompanied by his consort Chabui.[73]

The accouterments illustrated in these painting survive elsewhere. In women's fashion, for example, the tall hat known as a *bughtaq*, has long been known from later Yuan portraits such as the silk one depicting Chabui, who herself is credited in her *Yuan shi* biography with having designed a peaked hat for her husband Qubilai after he was once dazzled by the sun while aiming to shoot an arrow, a design that caught on at court.[74] Examples of the *bughtaq* found recently in the region (fig. 09), and known from the portraits of the empresses in the *Mandala of Yamantaka-Vajrabhairava* mentioned above, bear out its physical reality.[75] Measuring nearly 90 cm in height when intact, this headgear comprised a column-shaped bark cloth covered by a gold cloth cut in the shape of a hat with lappets reaching the shoulders and padded with silk wadding. The hat was attached under the chin by a secondary hat with a hole in the middle through which the bark column projected.

These elaborate headdresses, particularly those for royal wives, were further adorned with metal spires and tail feathers and decorated with pearls and gold jewelry. These included spiral-filigree ornaments of a type known from the Song period in China (and possibly earlier) and spread under the Mongols to the western khanates.[76] The same path of transmission is true for the elaborate robes that typically crossed to the

right and had a wide ribbed waistband.[77] Like the individual elements of dress, the royal couple's stemmed or handled cups, often melted down for their precious metals, are known from excavations at the Golden Horde capital Saray Berke or from chance finds on the Mongolian or Qipchaq steppes.[78]

The survival of these textiles and metalwares shown in pictures and paintings suggests further that other more perishable items that have not survived such as folding stools and dragon-headed thrones were similarly adopted in the western khanates as signs of Mongol sovereignty. So too the western khanates used rectangular seals inscribed in Phagspa and stamped in red on documents and artworks.[79] These in turn provided formal models for variants issued by local authorities in Arabic script, such as the square bronze seal inscribed in a square kufic with the name of the Injuid ruler Abu Ishaq (*r*. 1343-53).[80] The use of seals in Phagspa script, which have turned up all over Yuan territory, even among the wreckage of Qubilai's fleets in Takashima Bay in Japan, may also have prompted the use of Tibetan and other scripts, as well as ciphers and monograms in seals. Phagspa seals are occasionally seen on artworks, like the one of a senior minister impressed on Liang Kai's (*c*. 1140–*c*. 1210) portrait of the Tang poet Li Bai (Tokyo National Museum, TA164), mentioned above. Presumably these seal impressions exemplified the wider visibility of many language scripts in urban and official life, as also seen in the multi-lingual inscriptions on the Cloud Terrace at Juyongguan.[81]

One type of object depicted in other album paintings of Mongol campaigns or entourages (Diez A, fol. 71, S. 50 and 53) aptly illustrates how Mongol customs were

adopted and adapted across Asia: the *paiza* or passport, a metal (or sometimes wood) plaque used to identify official couriers or envoys, themselves sometimes part of the postal network inherited from earlier systems in Liao China.[82] These plaques do not appear to have been depicted in Chinese art, even where they might have been expected, for example in a tersely titled handscroll painting like *Man Riding* of 1296 by Zhao Mengfu, who had previously been a senior official in the Postal Service.[83] Possibly a self-portrait or a portrait of Zhao's younger brother, this dignified, red-robed equestrian is an official arriving in post, but he has no framing escort as one sees in Ilkhanid paintings of grandees travelling with *paiza*-bearing mounted retinues.

Examples of such plaques from Liao and Yuan China, the Golden Horde, and the Ilkhanate show how a common item could be transformed to meet local needs, whether in shape, language, or iconography.[84] Earlier ones seem to have been rectangular with a hole, whereas later ones had a rounded or scalloped body with a ring by which the envoy attached the metal plaque to his person. The languages and scripts inscribed on them ranged from Khitan and Chinese to Phagspa, Uyghur, and Arabic. And the iconography evolved as well. In addition to writing, later ones have figural imagery, including a stylized dragon face, found on both Yuan and Golden Horde examples, and the figure of a striding envoy, found on the Ilkhanid one. He carries a three-pronged javelin identified in the 1341 manuscript of the *Muʾnis al-aḥrār* as a spear (*nayza*) or dart (*khisht*).[85]

Such combinations of languages and images compares with the design of another circulating form of representation, namely Yuan paper money notes (based on Jin

designs), which bore texts in Chinese and Phagspa as well as pictures of the value and of dragons and phoenixes. Another example is the architectural design of liminal points in the communications network, such as inside the relief-sculpted and inscribed arch of the Cloud Terrace (Yuntai) of 1342-45, just north of Beijing where the Great Wall and Juyongguan pass intersect. The inscriptions, which are in Sanskrit, Tibetan, Phagspa, Uighur, Tangut (Xi Xia), and Chinese, are positioned between sculpted figures of the guardian kings of the four cardinal directions. Negotiating offerings of Tantric Buddhist protection may have gone hand in hand with border and customs formalities for travellers and traders at such a site.[86]

By combining the information from illustrations, objects, and texts, we can both identify the subject matter of detached images and name the specific objects in them. This is the case, for example, with various types of Mongol weaponry, most of which has not survived.[87] Two well-known pages from an album in Berlin (Diez A, fol. 70, S. 4, right, and S. 7, left) have been identified as depicting the Mongol capture of Baghdad and prominently display the catapults, bows, quivers, and war drums used to terrify and subdue the enemy.[88] Another detached image (Diez A, fol. 70, S. 19, nr. 2) shows horsemen leading away prisoners trapped in a two-pronged wooden shackle.[89] Chronicles such as Rashid al-Din's *Jāmiʿ al-tavārīkh* name this device under the Persian term *dushākha* (literally, two-branched).[90] These images, then, literally illustrate history.

There is little of this in China, by contrast, where the tenor of painting was more about building civic society or about individual exemplary conduct, as seen in the biopic scroll, *Episodes from the Career of a Yuan Official*, which eulogies the life of an inner

Asian military official whose Chinese name was Zhao Yu.[91] The exception may be illustrations of Mongol archery techniques in the early fourteenth-century southern Chinese encyclopaedia, *Shilin guangji* (*Forest of Affairs*). The depiction of the mounted archer illustrates the Parthian shot; the dropped sword lying on the ground and the grass tufts look distinctly un-Chinese but are not unfamiliar in cavalry engagements depicted in Persian painting.[92]

The type of luxury product that best embodies the mutually fruitful artistic exchanges across Asia under the Mongols and the complications in discussing them is blue-and-white porcelain (fig. 01), produced mainly if not exclusively at the kilns of Jingdezhen in Jiangxi province in southeast China. Most scholars adhere to the traditional schema proposed for its florescence in the second quarter of the fourteenth century based on the stylistic chronology laid out by John Pope in his 1956 monograph on the many fine examples preserved at Ardabil.[93] The dating to the second quarter of the fourteenth century has been corroborated in part by negative evidence: the complete absence of blue-and-white from a large cargo of Chinese ceramics wrecked off the coast of Sinan in South Korea that is securely dated to 1323 and included some five thousand pieces from Jingdezhen.[94] More positive evidence for the florescence of the blue-and-white production in the second quarter of the fourteenth century is offered by the date of 1351 on a well-known pair of large vases presented to a Daoist temple in Yushan district, 120 km southeast of Jingdezhen.[95] In addition to these dated ritual vessels, archeological evidence confirms that sizeable blue-and-white dishes were made for export by the mid fourteenth century, as shown by a large group of shards found in

the garden of the Kotla Firuzshah, a palace built in Delhi by the Tughlugid ruler Firuz Shah (*r*. 1354-88).[96] The difference between the ritual vessels found within China and the platters found elsewhere might also point to a difference in taste, function, and market.[97] Furthermore this neat chronology has been complicated by recent discoveries of tombs and hoards in China.[98] These discoveries in turn raise as many questions as they answer. Did, for example, experiments in underglazing and the use of cobalt blue happen earlier or elsewhere in China? Are some of the blue-and-white pieces believed to be Yuan actually earlier, as claimed in a revisionist theory that has not received widespread acceptance?[99]

Explanations for the development of blue-and-white porcelain are likewise complicated, as credit for the innovation often depends on the interests of the person who is giving the explanation. Thus, some scholars of Chinese art emphasize the "Chineseness" of the motifs, whereas scholars specializing in the arts of Persia and Islamic West Asia emphasize the imported elements such as the cobalt and the technique of underglaze painting used to decorate it.[100] Finds now point to the collaborative nature of early Jingdezhen blue-and white, facilitated by the Mongols, as seen in stemmed winecups, some with inverted rims (possibly to prevent spillage while mounted), bearing poetic inscriptions in Persian inscribed by Persian hands.[101]

The range of evidence is so broad that it is often difficult to control all the sources from the various regions. Thus, a recent comprehensive survey of the subject by the leading expert in Yuan ceramics cited the letters of the Persian vizier Rashid al-Din as evidence for the existence of blue-and-white porcelain in Ilkhanid Iran.[102] Yet a decade

earlier Alexander Morton definitively proved that these letters were a creation of the fifteenth-century, and virtually all major historians of the Mongol period in West Asia have accepted Morton's conclusions as conclusive.[103] David Morgan recently noted that one of the main difficulties confronted by historians of the Mongol empire is the number of languages in which the sources were written.[104] The same could be said for the visual and material sources, and here, as in other fields, collaboration between scholars of various regions and media may offer a broader and more nuanced perspective, as wider visual literacy enables the determination of greater commensurability in comparisons.

Blue-and-white porcelain was but one aspect of the large-scale ceramic trade, which also included Longquan celadons, between China and the Islamic lands that goes back many centuries, at least to the so-called Samarra-horizon of the early ninth century.[105] The Belitung shipwreck discovered in 1998, only one of many such cargoes, attests to some twenty-five tons of Chinese stonewares and porcelains destined for consumers in Abbasid Iraq.[106] But as Oliver Watson pointed out recently, these imports were not simply a matter of Iraqi reaction to imported Chinese wares, but required the creation of a mass market to want them and a mercantile system to supply them.[107]

As with the Samarra wares of the ninth century, the blue-and-white porcelains of the Mongol period offer evidence about how the foreign market, as catered to by the powerful Mongol-Muslim trade associations, drove aspects of the design of wares made in China. Many of the large dishes with foliate rims are decorated with complex paneled and banded designs quite different from the single scenes preferred in the traditional

Chinese repertory, seen for instance in northern Cizhou wares, and more like the compositions typical of Islamic wares and attested, for example, on the Kashan luster dish dated 1268-69 CE (fig. 03). Furthermore, the designs on these large blue-and-white dishes, like that on the luster dish dated 1268-69, could be worked out in reserve by coloring the ground blue and leaving the design in white. The reserve technique requires far more cobalt than simply painting a blue design, an expensive development of decorative practices seen on popular Cizhou wares produced all over north China, on Jizhou wares in south China, and indeed in inlaid Korean wares.

Many of these dishes, like Cizhou pieces, are also very big: the largest known charger from the Ardabil collection measures 57.5 cm in diameter. It is inscribed on the back rim in Arabic with the word Jingdezhen, written under the glaze and added at the kiln presumably to ensure quality to the user, in the same way that modern ceramics have "Limoges" written under the foot.[108] The large dish would have been suitable for the communal serving typical of the meals prepared in the Islamic lands, and its design was deliberately adopted to fit the taste of its users, who were willing to pay high prices for a very large and very hard vessel. Blue-and-white's southern rival, Longquan, also made pieces very large, apparently beginning in the 1320s, judging by a dated example of 1327 in the Percival David collection and similar examples commissioned by temples in Japan.[109]

The Ardabil dish was part of the royal collection of more than one thousand ceramics that the Safavid shah ʿAbbas endowed in 1611 to the shrine that had developed since the Mongol period around the grave of his eponymous ancestor. The

ceramic collection includes 400-odd other pieces of blue-and-white porcelain, a cross-section of the best quality wares and many of the largest pieces known. We have no evidence when this particular blue-and-white dish came to Iran, but given its royal pedigree and the Arabic inscription on its reverse side, it must have been made for the export market. The most likely suggestion is that it came to a very wealthy Mongol patron in Iran soon after it was produced. Shipment of so many large and heavy dishes and vessels occurred with the development of the extensive mercantile network developed under the Mongols. From Jingdezhen, these wares were widely distributed, sometimes via land routes across the steppe from Dadu/Beijing to Karakhoto but more often via maritime routes from Ningbo and Quanzhou (Zaytun) east to Korea and Japan and west through the Malacca Straits to India, the Maldives, the Persian Gulf, the Red Sea, and East Africa. The Mongols, themselves originally nomadic and still transhumant into the fourteenth century, encouraged trade, which was often carried out by Muslims and other foreign merchants in *ortogh* partnerships with them.[110]

Under the Yuan, these activities were supervised under specialized government agencies such as the Maritime Trade Bureau and the Supervising Money Bureau,[111] but evidence for such state-controlled workshops in the western khanates is more limited. The formal nature of the inscription on the Abu Saʿid silk (fig. 02) shows that it was woven in a state factory, but it is the only Ilkhanid example known, and we have no evidence for the precise organization of the workshop where it was made. Occasional hints about such factories crop up in texts describing other political events in the Ilkhanate, as in Rashid al-Din's account of the dispute between Hülegü's son Ahmad

Tegüder (*r*. 1282-4) and his nephew Arghun. According to the chronicler, Ahmad seized and plundered three hundred households of artisans who belonged to Arghun; in return Arghun sent to the workshops (*karkhānahā*) at Nishapur, Tus, and Isfarayin in eastern Iran for cloth or garments (*jāmaha*) to be brought. Within twenty days, quantities of gold, jewels, and textiles were delivered to the Adiliyya in Jurjan and distributed among the amirs and soldiers.[112] A more rigorous search of more texts might yield more references to such workshops and help us to understand how they functioned in the western khanates.

Foreign merchants from the west were also active traders in the western khanates. Using written sources, historians have traced the extensive trade between Italian merchants from Genoa and Venice with Tabriz and cities on the Black Sea.[113] Objects like the silk made for Abu Saʿid (fig. 02) provide evidence of such traders as well. Its inscription offers blessings on a living person, but following the sultan's untimely death at age thirty in 1335, the textile would have been useless at the Ilkhanid court. It must have been picked up there by a merchant who took it to north Italy, where it was made up into the burial suit of the Hapsburg prince, Duke Rudolf IV, who had died unexpectedly in Milan in 1365 and whose body was transported in this suit to his capital, Vienna, where he was buried in it in the ducal crypt in St. Stephen's Cathedral. It took only three decades to put the silk to use in Europe. Other similar silks were interred in the tomb of Cangrande della Scalla (*d*. 1329) in nearby Verona, and some were shipped across the Mediterranean as far as Burgos in the Iberian peninsula.[114] Such objects thus complement the information contained in written sources, and mapping

the diffusion of these silk textiles and other objects would aid in the establishment of overland trading networks in the same way that the presence of caravanserais at Marand and Sarcham document the land route north from Tabriz to Julfa.[115]

Foreign populations also resided in Yuan and Korean cities—Yuan merchants in Korea and members of the Korean royal family in Dadu, for instance—although supporting visual sources are thin. A rare piece of evidence for cosmopolitan social intercourse in Dadu is preserved in Japan: a scroll of calligraphy by the southern Chinese court calligrapher Feng Zizhen, who served the Mongol princess Sengge Ragi, presented to the Japanese Zen monk Muin Genkai (1283?-1358?), a pupil of the pre-eminent southern Chinese Chan master Zhongfeng Mingben (1263-1323).[116] Material evidence is more helpful in documenting the influx of Persians and Central Asians to southern China. The Mongols built up their sea power in the 1260s and 1270s, partly to frustrate Song trade but also to secure Korea and invade Japan, and with the fall of the Southern Song in 1276-79, the southern ports were opened up. Quanzhou became a clearinghouse for goods headed north.[117] The former Song navy formed part of Qubilai's massive fleet for the second invasion of Japan which departed from Ningbo at the mouth of the Qiantang River. A naval action is one of the scenes in the *Mongol Invasions of Japan (Mōkō shūrai ekotoba)* picture-scrolls of 1293 commissioned by the samurai Takezaki Suenaga (1246-1314) after the catastrophic failure of the second invasion.[118] Curiously, on the destruction of both invasion fleets by typhoons (*kamikaze*, "divine winds"), these scrolls are silent. The Persian population of Hangzhou rose significantly under Bayan Noyan, Mongol governor for Qubilai, as attested not only by references in

chronicles but also by the numerous tombstones in the Phoenix Mosque there.[119] Tombstones are particularly suitable as historical documents, because they are dated. Corresponding ports in southern Iran flourished at this time as well, as shown by the prosperity of the island of Kish.[120]

The notorious Tangut lay-monk encountered above, Yang Lianzhenjia, a deputy commissioner for religious affairs in Hangzhou and a protégé of the vizier Sangha, was among the leading official and private patrons of Buddhist art and architecture in early Yuan Hangzhou, evinced by his personal commissioning of some of the dozens of Yuan figures carved in the grottos along the Feilaifeng cliff face opposite the famous Chan Buddhist temple, Lingyinsi, west of the city.[121] The Buddhas and other Yuan figures attest to Indic, Tibetanized, and Chinese modes co-existing, sometimes within the same grotto. Such material evidence contrasts with the Chinese textual record wherein Yang is infamous for having facilitated, in the 1280s, the ransacking of the Song imperial tomb precinct south of the city, involving also the desecration of the corpses, by Tibetan and Central Asian monks to fund restoration and construction of Buddhist buildings. The skull of Qubilai's former adversary Song emperor Lizong (*r*. 1224-64), a trophy presented to Yang by those monks and made into a cup, made its way up the Tibetan Buddhist hierarchy to court where it was later spotted at a state banquet by the Hanlin academician and art connoisseur Wei Su, who successfully appealed to the khan to have it reburied.[122]

Material evidence shows further that such transnational networks between the Chinese and south Persian littorals were not limited to merchants.[123] In the west, Sufi

orders also engaged in such commerce. A good example is the Kazaruniyya/Ishaqiyya, an order that prospered in the late thirteenth and early fourteenth centuries around the tomb of the founder Abu Ishaq (*d*. 1003) at Kazarun in southwest Iran.[124] The order had extensive ties both west by land across Anatolia, with hospices at cities such as Erzerum, Amasya, Konya, and Bursa, and east by sea to the coasts of India and China. The Moroccan traveler Ibn Battuta stayed overnight in the home hospice (*khānaqāh*) at Kazarun, as well as at others in Calicut and Quilon on the Malabar Coast and in Zaytun/Quanzhou on the east coast of China, some of which were supervised by disciples from Fars.[125] The order ran a sort of Sufi-insurance agency, as the shaykh's blessing (*baraka*) was regarded as protection from danger. Ibn Battuta describes how fearful seafarers would pledge sums of money in hope of being safely delivered. When the ships docked, members of the order were waiting to redeem the pledges. Material evidence here again corroborates textual evidence, for the order issued its own coins.[126] Sufism here was no otherworldly asceticism but a practical moneymaking business condoned by the government.

The Kazaruniyya are but one example of the prosperity of southwest Iran, particularly in the early fourteenth century, a florescence again well documented not only in written sources but also by material objects. Denise Aigle has charted the politics and fiscal administration of Fars province under the Mongols, and John Limbert has profiled the poets and scholars that flourished in the main city of Shiraz.[127] One could well use visual sources for similar ends. Local production there included a rich range of inlaid metalwares and various types of manuscripts, ranging from copies of the Qur'an

to illustrated manuscripts of the *Shāhnāma*. Many of these objects are frequently discussed and reproduced, but a study of them as a whole has never been carried out and their usefulness as sources for provincial activity is underexploited.[128]

Textiles show that such contacts between southern Iran and the Mongol regions in the East existed already in the thirteenth century. A stunning silk-and-gold textile in the David Collection (20/1994) names the Salghurid Abu Bakr ibn Saʿd (*r*. 1226-60) (fig. 06??).[129] As ruler (*atabeg*) of Fars, he acknowledged the suzerainty of Ögödei, who bestowed on him the title Qutlugh-Khan. Abu Bakr regularly sent tribute of pearls and other gifts to his Mongol overlord; perhaps this textile, surely woven in the Mongol domains to the east, was sent back as confirmation of Salghurid submission. It seems never to have reached Iran, for it, like many other textiles that have appeared on the market, is said to have been preserved in Tibet. Its publication in a catalog of art from the Yuan period points to the recognition of the global nature of art produced for the Mongols, and it, like other objects, can and should be exploited as a primary document.

A New Material World

One result of all this extensive network of commodity and exchange among the khanates was the development of a different material world. There was a shift in the balance of individual media. In the Ilkhanate, as in Korea, illustrated manuscripts became a major medium of production and covered new topics. China, with its traditions of calligraphy and painting, scrolls and printing for religious and civic functions, may have provided the models not only for format but also for subject

matter. David Morgan noted recently, for example, that the Chinese tradition of diary keeping and collective histories might have inspired local Persian historians such as Kashani and Rashid al-Din.[130] Rashid al-Din would likely have been aware that on the death of Qubilai in 1294 some of the most brilliant Yuan scholars, including Zhao Mengfu, were seconded into the National History Office of the Hanlin Academy in Dadu to compile and edit the veritable records of his reign (*shilu*), traditionally the source material for the history of the dynasty that was to be written by its successor, as duly occurred under the editorship of the Confucian scholar-official Song Lian (1310-1381), architect of the early Ming regime. Qubilai himself showed close interest in Song imperial history, exemplified for him in the person of Zhao Mengfu, a minor Song royal from Huzhou, just north of Hangzhou, who was commonly referred to as a "princeling" (*wangsun*) and whose recruitment to court in 1286 was a major achievement. The Tang court artist Yan Liben's (c. 600-673) *Thirteen Emperors* (Museum of Fine Arts, Boston) was among the paintings that came into the khaqan's possession in 1276 from the former Song imperial collection; the emperors of many of China's dynasties were in turn depicted in Rashid al-Din's *Jāmiʿ al-Tavārīkh*.[131]

There were other innovations to the material record in this period as well. The Qipchaq steppe under the Golden Horde became the site for the production of fine pottery, seemingly for the first time. Variants of the type of underglaze ceramics known as Sultanabad wares, after the site west of Kashan in central Iran where many were excavated clandestinely in the early twentieth century, were excavated at Saray Berke. These wares may suggest that a contingent of potters brought their own methods and

expertise, including the fritware body, vessel shape, and style, west to the lands of the Golden Horde.[132] Rashid al-Din's treatise *Āthār wa aḥyāʾ* attests to the propagation, cultivation, and diffusion of a wide variety of plants and trees, some from China, India, and Southeast Asia, to the Ilkhanate.[133] The one new ceramic shape of the period in west Asia—a bowl with an articulated wall forming a broad in-sloping rim—might reflect a new type of cuisine that included the adoption of rice, which seems to have occurred at this time.[134]

Textiles comprise one of the major commodities traded across Asia, or otherwise displaced, for instance in the possession of elite tribute women, and the gold-and-silver lampas weaves were not the only new type popular in this period. So was the knotted carpet. A few examples have been preserved in Anatolia, but other carpets with pseudo-kufic borders enclosing a field with octagons incorporating stylized animals have recently come to light from Tibetan monasteries. To judge from their designs, some of which can also be documented precisely in Ilkhanid painting, these carpets attest to the flourishing of production in the western khanates, but attribution to Anatolia or Iran again often depends on the interests of the scholar involved or the subject of the collected volume in which the paper is published.[135] A group of twenty-one carpets used to decorate a parade of floats in the Gion Festival in Kyoto, Japan, have similar pseudo-kufic borders enclosing Chinese motifs such as a prunus branch or octagons.[136] They not only demonstrate that some knotted carpets were produced for the East Asian market, but also show the value of looking at regional sources. Furthermore, the evidence from

these carpets is becoming more valuable, as they are increasingly being dated more accurately with improved techniques of carbon-14 testing.[137]

During this period shapes and designs were often transferred between regions and/or media.[138] Metalware forms were often reproduced in ceramic. This is the case not only with the stemmed cups and large flat dishes used by the court, but also for other objects such as tripod incense burners.[139] The lobed roundels used for cloud collars could be adapted to fill the surfaces of blue-and-white plates or the handles of metal cups or *paiza*s or as gold filigree ornaments. The panel style was used in both Kashan and Jingdezhen. Scenes on Kashan ceramics that are cut off on the sides suggest that potters had some familiarity with scenes illustrated in manuscripts.[140] In Yuan China, at Longquan and Jingdezhen and possibly at the Cizhou kilns, potters took woodblock picture designs, often from dramas and *pinghua* texts as in the case of the Guiguzi story already noted, but also more "decorative" designs.

The visual evidence suggests a wide and easy currency of images of birds, flowers, and pond scenes across many points of consumption, for example in print from the court dietary manual *Yinshan zhengyao* of 1330 to the *Shilin guangji* of about the same date or a little before, and in painting from scholar-cum-professional painting mode of Wang Yuan to high-end artisanal paintings of the Piling School to vernacular and funerary mural painting. The so-called Piling School of painting, located at Changzhou on Lake Tai in Jiangsu Province, specialized in pond scenes featuring lotus and water birds of the kind seen in carved in jade on official hat finials but also quickly adopted for surface decoration by producers of blue-and-white porcelain. The Piling

School peaked during the Yuan, but examples of paintings survive mainly in Japan, likely enough because they were unsigned and sometimes made in decorative pairs, characteristics of little appeal to literati critics in China.[141]

Individual motifs were shared across media and regions as well. Dragons, phoenixes, peonies, and lotuses were applied to a variety of media across Asia, as were pseudo-kufic borders on carpets, although it is doubtful that any of these motifs retained the significance they had carried in their original contexts. Most motifs moved from east to west and were then exported beyond the khanates to Syria and Egypt, but the pseudo-kufic borders moved in the opposite direction, as did materials like cobalt along with the skills to use it. It was part of a favored palette that incorporated contrasts of gold with blue and other colors, whether in the new overglaze technique of *lājvardīna* developed for ceramics in Iran or in an unusual group of overglaze enameled wares found in Inner Mongolia.[142] Again, we do not know whether the predominance of blue is related to the Mongol worship of Tengri as Sky God or whether it was simply a response to the availability of high quality cobalt, or both.

The changes introduced in the arts of Mongol period in the western khanates, especially that the Ilkhanate, are so extensive that Linda Komaroff described production there as part of "a new visual language."[143] This idea might also have some currency in discussing Yuan art. One feature there was a novel interest in perspective and the opening up of space, even in the antiquarian scholar mode. Such depiction of a unified landscape, intensifying the virtual reality of the pictorial image, that runs from the bottom edge of the painting uninterrupted to the horizon above is evident in Yuan

landscape paintings by Zhao Mengfu, including his *Autumn Colors on the Qiao and Hua Mountains*, dated 1296, and *Water Village* of 1302.[144] Persian painters, perhaps introduced to this concept through prints and possibly textiles, developed it over the course of the fourteenth century such that the unified plane with high horizon becomes standard in Persian manuscript illustrations from the 1370s. As far as the make-up of an official "visual language" in the Yuan is concerned, one might point to the appearance in architectural painting (*jiehua*) and interior scenes of a perspectival system that was either affine (parallel) or tending towards the inverse (i.e., converging towards the observer), as is seen in paintings done at the Yuan court by Wang Zhenpeng, like the scroll, commonly if erroneously known as *Mahaprajapati Nursing the Infant Buddha* (Museum of Fine Arts, Boston, 12.902).

Figural painting in Yuan China, likewise, could be intensely realistic. Some of the most successful paintings carried deep appeal to the senses even if they were rendered using schemas and idioms such as Chinese ink-outline technique (*baimiao*), as in the case of Wang Zhenpeng's *Boya Playing the Qin* (Palace Museum, Beijing), painted for Princess Sengge Ragi. The narrative realism and spatial complexity and depth seen in professional painting as in Piling School scenes of lotus ponds carried over into the carving of jade. This is not to suggest all of Chinese painting embraced such novelties: provincial scholars in the late Yuan championed modes of expressionistic brushwork and humanistic content, thereby highlighting painting as a literary practice rather than a pictorial craft. Similarly, the art of women like Guan Daosheng (1262-1319), wife of Zhao

Mengfu, appears to have been rather conservative, not straying far from Southern Song modes.

A second feature of this new style, again found in the arts produced under both the western khanates and the Yuan, is a desire for monumental size. The arch in the congregational mosque that the vizier ʿAli Shah ordered built at Tabriz in the 1310s stretches thirty meters across, was supported on side walls some ten meters thick, and rose to an assumed height of twenty five meters.[145] Similarly, Uljaytu's tomb at Sultaniyya (fig. 04) dwarfs its predecessors; its twenty-five meter dome approaches the limit of single-span construction in brick. Standing over 50 meters high, the stupa of Anige's White Pagoda Temple took almost a decade to build and was one of, if not the largest structure in Yuan Dadu.

The Mongols themselves were often depicted as men of large and powerful physiques in East Asian paintings and prints, something complemented by the heft and size of many ceramic vessels, particularly from the 1320s on, as noted. The thirty-volume Qur'an that the sultan endowed to the pious foundation around Uljaytu's tomb is transcribed on full *baghdadi*-size sheets of paper, with each bifolio measuring 73×110 cm.[146] A mold slightly over a meter in width approaches the limit of what a single papermaker can lift, and the sheets are thus the largest that can be produced using dipping molds. Many features of size known in the Ilkhanate, from the large iwan to the large-size sheets of paper, were in turn adopted by the Mamluks in Egypt and Syria.[147] Such size not only bespeaks generous funding but also evinces a taste for importance demonstrated through scale.

A third feature found in many of the arts produced for the Mongols, both in the western khanates and under the Yuan in China, is an interest in allover surface patterning, often with raised, pierced, or multi-level carving. In the Ilkhanate, the medium that best exemplifies this feature is plaster, whether in designs that are cut down from the surface, as with the extraordinary mihrab added to the congregational mosque at Isfahan in AH 710/1310 CE,[148] or in other designs that are raised from the surface, as in the molded and painted bosses added to the tomb at Sultaniyya.[149] Both techniques of plasterwork were again exported to Mamluk Cairo.[150] In China, such designs can be very well seen in lacquer and also in ceramics, as on the Longquan-ware octagonal vase with biscuit panels showing the Eight Daoist Immortals or the porcelain jars with red and blue-and-white panels.[151] Such designs, which may reproduce the raised affect of compound lampas or tapestry weaving, were executed in other media as well, ranging from metalwares to lacquer and cloisonné enamel.[152] The examples par excellence are the stone relief carvings of the four Guardian Kings at the Cloud Terrace at Juyongguan (fig. 05). One reason for the spread of such surface patterning is the widespread adoption of paper for stencils and designs, a feature that allows the transfer from one medium to another and from one scale to another.[153]

Many of these artistic innovations were not necessarily produced by or even for the Mongols themselves. However, the framework of Mongol sovereignty in the thirteenth and fourteenth centuries afforded a cultural climate accepting and even desiring of new and different artistic and aesthetic features from individual motifs to designs, modes and elements of style. Visual sources, in the sense of buildings and

objects, thus help us to map the mental space of the period, its "period eye" and the social agency of its artworks. These works are the result of increased commerce and the availability of models, facilitated by the empire, but they also embody a taste ready to accept the new and different, a taste established in the Mongol period.

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[1] We have tried to cite here only the most recent or most accessible works, but the sheer number of notes demonstrates the size of the burgeoning scholarship on the visual culture of Eurasia during the Mongol period. The authors are grateful to several colleagues who read through many drafts, including Jonathan Bloom, Nancy Steinhardt, and Christian Luczanits and Charlotte Horlyck for comments pertaining to Himalayan, Mongolian, and Korean sources. Any errors are ours alone.

[2] This newer approach that emphasizes agency has also been adopted for much historical analysis of the period, beginning with the work of Allsen 2001; see also Biran 2004. On the damning of the word "influence," see Baxandall 1992, 58 and, for Chinese art history, Hay 1999; for the problems in applying it to the interchange between East and West Asian ceramics in the ninth century, see Watson 2014, 124. For a synthetic study of Yuan art history and material culture informed by "art and agency", see McCausland FORTHCOMING.

[3] Allsen 1997b, 10.

[4] Allsen 1997 and 1997b; Watt and Wardwell 1997; Watt 2002.

[5] Melville 1990; Biran 2004, 353; Jackson 2005 describes the various conversions.

[6] Allsen 1997b, 20; see also the various essays in Kauz 2010.

[7] In addition to lists of tribute in the *Koryo-sa* is an epitaph, dated 1335, in the National Museum of Korea of a royal surnamed Kim (1281-1335) who gave up her daughter in tribute to the Yuan, (in Chinese) *Da Yuan Gaoli guo gu Shouning weng zhu Jin shi muzhiming.*

[8] A mural-painted Yuan tomb found in 2014 at Luogetai, Hengshan County in Shaanxi Province, shows the deceased man, who could be a Mongol or Han Chinese but is dressed in Mongol attire, and his five wives in Chinese attire seated on a bench in front of a screen; *Kaogu yu wenwu* 2016.

[9] Polo R1993; Ibn Batutta R1993; Allsen 2001, part III. On European encounters see Arnold 1999, Purtle 2011.

[10] McCausland 2011; Hearn 2011. Some of the extended comments on these scrolls are almost like conversations between connoisseurs. For Zhou Mi see, e.g., Weitz 2002; for Li Kan see Kao 1981; for Tang Hou see Chou 2005.

[11] Wang Yun 1993-97 (reprint 2009).

[12] Chen 2016; McCausland 2014, chapter 5.

[13] Abū al-Qāsim Kāshānī 1345/1966-67; partial English translation in Allan 1973.

[14] Most of the albums are in the Topkapı Palace in Istanbul and the Staatsbibliothek in Berlin; see Gonnella, Weis and Rauch 2017; for the history of the albums, see also Roxburgh 2005.

[15] Tokyo National Museum. The seal is sometimes said to be that of Qubilai's Nepalese art impresario Anige (1245-1306); on him, see Jing 1994.

[16] See McCausland 2014, 37, 50, 142, 205ff and figs. 13 and 134, based on the research of Fu Xinian. The scroll is also illustrated in Watt 2010, figs. 51 and 230.

[17] Blair 1992; Hillenbrand 2002; Kadoi 2009, chapters 4-6.

[18] Rice 1976; Gray 1978; Blair 1995; Komaroff and Carboni 2002, nos. 6-7, figs. 130, 162, 172-75; Ben Azzouna 2014; Ben Azzouna and Roger-Puyo 2016; Kamola 2018 and 2019.

[19] Berlekamp 2010, 217.

[20] Watt 2010, 24-25 and figs. 37 and 314.

[21] Blair 2014, chapter five, and 2018; Dust Muhammad's preface is published and translated in Thackston 2001, 4-17.

[22] McCausland 2011 covers the life and works of Zhao Mengfu.

[23] Wang 2009. For other interpretive studies see Hay 1989 and Sturman 1999.

[24] *Zhang Guo's Audience with Emperor Minghuang*, Palace Museum, Beijing; illustrated McCausland 2014, figs. 98 and 99.

[25] The scroll is illustrated in Watt 2010, fig. 28; McCausland 2014, fig. 4.000.

[26] Ritter 2010; Folsach 2013, 233-34 and fig. 225; Blair 2013, 215 and fig. 6.

[27] Wardwell 1989; Allsen 1997; Watt and Wardwell 1997, chapter 4; Ritter 2010 and 2016.

[28] Allsen 2000; Biran 2004, 352.

[29] Swietochowski and Carboni 1994.

[30] Watson 1985, fig. 89a and b; Soucek 1999, fig. 4; Komaroff and Carbone 2002, no. 128 and fig. 3.

[31] Watson 2006.

[32] Watson 1985, color pl. G.

[33] On Yuan-Ilkhanid relations and ceramics, see Soucek 1999.

[34] Amitai-Preiss 1999.

[35] Golombek and Wilber 1988, no. 2; Nemsteva 1989; Blair 2019. Many of the tiles from Buyan Quli's tomb were purchased by the Victoria and Albert Museum in London in 1899 and 1900 and are now on display in the Jameel Gallery there; see Crill and Stanley 2006, 64-65. Others in the MK&G Museum in Hamburg are available at http://www.mkg-hamburg.de/en/collection/permanent -collection/islamic-art/tiles-with-spiral-vines-from-the-mausoleum-of-bayan-quli-khan .html.

[36] Blair 1986; Pfeiffer 1999.

[37] Hillenbrand 1982; Blair 1982.

[38] Golombek 1974 first drew attention to this phenomenon and sketched the history of five major complexes at Natanz, Ardabil, Isfahan, Bastam, and Turbat-i Shaykh Jam. On Ardabil, see Morton 1974 and 1975 and Rizvi 2011, chapter 1.

[39] Steinhardt 2015, 92-108; Blair 2019. On Almaliq, see also O'Kane and on Karakhoto: Carswell 1999/2000, pl. 27.

[40] Tao 1959, *juan* 21; Xiao 1966.

[41] Jing 1994, 49-52 and figs. 3 and 4.

[42] Bentor 1995, 31.

[43] On Dadu: Steinhardt 1983; Liu 1992; McCausland 2014, chapter 1. On the Beiyuemiao: Steinhardt 1998. On the Yonglegong and related murals: Gesterkamp 2011; on the observatory at Gaocheng: Steinhardt 2015, 108-16.

[44] See, for example, the many Buddhist buildings mentioned in the written sources about Ilkhanid Iran in Prazniak 2011.

[45] Blair 2002, 110 and 2014, 139-46.

[46] *Wenwu* 2011. New discoveries include the Yuan tomb at Luogetian, Hengshan County in Shaanxi Province, noted above.

[47] McCausland 2014, 130ff and figs. 79-83.

[48] See, for example, the stunning caftans found around bodies buried in the Caucasus analyzed in Dode 2005.

[49] A point often made: see recently Blair 2014, 12. The best overview of ceramics from the western khanates is Watson 2002; for those from the Yuan, see Barnes 2010.

[50] E.g., the fragmentary blue-and-white porcelain stemmed bowl (no. 1) with Persian inscription excavated from level 6 of the Red Guard Cinema kiln-site; Huang Wei and Huang Qinghua 2012, 82 and fig. 5.

[51] Folsach 2013; Franses 2013. On Densatil: Czaja and Proser 2014.

[52] Watt and Wardwell 1997, cat. no. 25; Komaroff and Carboni 2002, no. 185 and figs. 125-26.

[53] Watt and Wardwell 1997, 14-15.

[54] Watt and Wardwell 1997, 127ff, nos. 35 and 36.

[55] Blair 2011 and 2014, chapter 5.

[56] Pope 1956; Medley 1986.

[57] Krahl 1986. Such collections were notably absent from Shanghai 2012.

[58] Thus, the major collections of Mongol textiles include the David Collection in Copenhagen (Folsach 2013), the Doha museum in Qatar (Gierlichs et al 2010), and the Marjani Foundation in Moscow (Lasikova 2014).

[59] The phrase is the apt title of Allsen's 1997 monograph.

[60] Steinhardt 1990, 147-60; Fitzhugh, Rossabi and Church 2009, 137-449; Biran 2004, 354-55 makes the point that many of these new capitals were to the northeast of the previous ones.

[61] Wang 2009.

[62] On Takht-i Sulayman: Masuya 2002; on Sultaniyya: Blair 198, 2014, chapter 4, and 2019; on the Golden Horde sites: Federov-Davydov 1991 and Allsen 1997a; on the Timurid ones: Golombek and Wilber 1988, 18-43.

[63] Allen 1981 and 1983.

[64] Danti 2004.

[65] Biran 2004, 344; De Nicola 2013, 126.

[66] Buell and Anderson 2000, 209.

[67] On Sultaniyya: Blair 2014, chapter 4 and 2019; on Takht-i Sulayman, Masuya 2002; on Shahr-i Sabz and Samarkand, Golombek and Wilber 1988, nos. 39 and 28 respectively. On Ilkhanid architecture in general, Blair 2019a.

[68] Wilber 1955; Vardjvand 1979 and 1987. For a celestial globe probably made there, see Carey 2009.

[69] For the one at Samarkand, see Golombek and Wilber 1988, no. 31; for Haocheng, see Steinhardt 2103 and 2015, 108-116.

[70] Buell and Anderson 2000; see also McCausland 2015.

[71] The pages are in albums divided between Berlin and Istanbul; see Gonnella, Weis, and Rauch 2017. In addition to individual items in exhibition catalogs (e.g., Komaroff and Carboni 2002, nos. 18-19, figs. 222 and 84; *Dschingis Khan und seine Erben* 2005, nos. 279-302), many of the illustrations from the Diez albums in the Staatsbibliothek in Berlin are available on their website at http://orient-digital.staatsbibliothek-berlin.de. For the Istanbul pages, see Karamağaralı 1966-8; better color reproductions in Çağman and Tanındı 1986, nos. 43-44.

[72] Kadoi 2017; Blair 2019b. On the important role of women in Mongol Iran, see De Nicola 2017.

[73] Illustrated in Fong and Watt 1996, pl. 138; Watt 2010, figs. 108-110 and 267; McCausland 2014, fig. 21.

[74] For a translation of her biography see Cleaves 1979-80; for her portrait, see Jing 1994.

[75] Like the scroll showing Qubilai hunting, the silk portrait of Chabi, also in the National Palace Museum, Taipei, is often reproduced; see, for example, Komaroff and Carboni 2002, fig. 27; Watt 2010, fig. 7. Several *bughtaq*s, including this one (published in Gierlichs et al. 2010, 64), have recently been acquired by the Museum of Islamic Art in Doha. Another spectacular intact example acquired by the Mardjani Foundation in Russia was exhibited in 2013 at the Pushkin Museum in Moscow: Lasikova 2014, fig. 1.

[76] Kramarovsky 2014.

[77] Spectacular examples of robes and other clothing are now being unearthed across the khanates: see Kessler 1994, nos. 106 and 108; Gierlichs et al. 2010, 62-67; Dode 2005; Denney 2011; Watt 2010, nos. 105, 261 and 264; Folsach 2013, pls. 228-30.

[78] *Simferopolskiĭ klad* 1986; Kessler 1994, figs. 103 and 107; *Treasures on Grassland* 2000, 251-52; Kramarovskii2001; Komaroff and Carboni 2002, nos. 139, 149, and 155, figs. 11-13 and 197; Fitzhugh, Rossabi, and Honeychurch 2009, no. 24.8, 25.4, 25.5, 27.8; Watt 2010, figs. 3-5.

[79] A thirteenth-century seal impression in red ink is illustrated in Kessler 1994, no. 99, and a Yuan seal dated to the equivalent of 1379 is illustrated in *Treasures on Grassland* 2000, 255. A comparable edict (*firmān*) issued in the name of the Ilkhan Geikhatu in AH 692/1293 CE is stamped twice with the seal of Qubilai (Komaroff and Carboni 2002, no. 68 and fig. 47).

[80] David Collection, Copenhagen no. 7/1996 available at http://www.davidmus.dk/en/collections/islamic/dynasties/il-khanids/art/7-1996; Komaroff and Carboni 2002, no. 167 and fig. 146. The ruler's name derives from that of the Sufi shaykh, but the seal should probably be attributed to the Injuid ruler, not the shaykh.

[81] On the seal of a Muslim collector-connoisseur of Chinese calligraphy, see Zhaona Situ 1998.

[82] Paintings shown in Komaroff and Carboni 2002, nos. 22-23 and fig. 39 and 68; *Dschingis Khan und seine Erben* 2005, nos. 297 and 300; analysis in Blair 2005.

[83] Palace Museum, Beijing; McCausland 2011, 135-37 and figs 2.11-2.12.

[84] A Liao *paiza* is illustrated in in Komaroff and Carboni 2002, fig. 70. Yuan examples inscribed in Phagspa include *Treasures on Grassland* 2000, 249 and Komaroff and Carboni 2002, no. 197, fig. 69. Fitzhugh, Rossabi, and Honeychurch 2009, no. 24.3 illustrates one issued in the name of the Golden Horde ruler Muhammad Uzbek (*r*. 1313-41). Another from the National Museum of Mongolia (Fitzhugh, Rossabi, and Honeychurch 2009, no. 27.5) is inscribed in three languages.

[85] Swietochowski and Carboni 1994, 3a and 4f. The manuscript also depicts many other types of clothing, weaponry, and implements with labels attached, such as a cuirass or corselet (*jawshan*), mace (*gurz*), and ax (*tabar*).

[86] Paper currency: Komaroff and Carboni 2002, no. 198 and fig. fig. 16; McCausland 2014, 118 and figs. 69 and 70; Cloud Terrace: McCausland 2014, 29 and 198 and figs. 6, 23 and 132.

[87] May 2007.

[88] Komaroff and Carboni 2002, nos. 24-25 and figs. 33 and 35; *Dschingis Khan und seine Erben* 2005, no. 279.

[89] Illustrated in *Dschingis Khan und seine Erben* 2005, no. 280; May 2007, pl. 5, bottom.

[90] Rashid al-Din 1998, 93 and 551.

[91] Nelson-Atkins Museum, Kansas City; see above note 000.

[92] McCausland 2014b.

[93] Pope 1956.

[94] Carswell 2000, 17; Barnes 2010, 360-62. For the revised excavation report: Munhwa jaecheong Gungnip haeyang yumul jeonsigwan 2006; for an exhibition at the National

Museum of Korea: Gungnip jungang bangmulgwan 1977; see also Kim 1998 and Lee 2011.

[95] Percival David Collection at the British Museum; Carswell 2000, fig. 40; Barnes 2010, pl. 7.49a-b.

[96] Smart 1977.

[97] On questions of taste, function, and market see Shih 2000 and 2003.

[98] Many of these are mentioned in Barnes 2010, 351-62.

[99] See, e.g., Kessler 1992 and 2012.

[100] Compare, for example, the discussion in Watt 2010, 280-86 with that in Carswell 2000.

[101] Huang and Huang 2012; McCausland 2014, 218ff and figs. 143 and 143.

[102] Barnes 2010, 347.

[103] Morton 1998, Allsen 1999, 432; Di Cosmo 2000, 583, Golden 2000, 132; Streusand 2000, 100; Morgan 2004, 132 and 2008, 143. Abolala Soudavar's 2003 rebuttal of Morton's arguments is not convincing and has even been criticized for its "markedly inappropriate language" (Morgan 2004, 132 and n. 6).

[104] Morgan 2013, 120.

[105] Northedge and Kennet 1994.

[106] Krahl et al. 2010.

[107] Watson 2014.

[108] Pope 1956, pl. 6K. This Arabic inscription differs from the names that are incised or drilled into the glaze by the later owner who endowed the pieces to the shrine.

[109] PDF 237 in the British Museum; Shōmyōji Temple in Kanezawa, illustrated McCausland 2014, fig. 136.

[110] Allsen 1997b.

[111] Endicott-West 1989 and 1994, 597-600.

[112] Rashid al-Din, ed. Karimi 1959, 2:792; trans. Thackston 1998, 3:553.

[113] Di Cosmo 2008.

[114] Wardwell 1989.

[115] Wilber 1955, nos. 85 and 90.

[116] The handscroll *Poems Dedicated to Muin Genkai*, a National Treasure in Japan (Tokyo National Museum, TB-1176), is one of several pieces of calligraphy that Feng Zizhen wrote for Genkai; illustrated in McCausland 2014, fig. 000. For another example, see McCausland 2014b.

[117] Allsen 1997, 18; Guy 2010.

[118] The best-known version is in the Imperial Household Collection, Tokyo; illustrated Conlan 2001.

[119] Lane 2018.

[120] Kauz 2006 and 2010a.

[121] Gao 2002; Mezcua López 2017. New research by Bernadette Bröskamp awaits publication.

[122] *Ming shi* 1999, *juan* 285, vol. VI: 4888-9. On these events see McCausland 2014, ch. 2.

[123] There is no material counterpart to the *Yuan shi* records of a continuous stream of local products arriving at court as tribute from diplomatic/trade missions from the kingdoms of Korea, Indo-China, and insular Southeast Asia.

[124] Lawrence 1983; Aigle 1997, 250-5.

[125] Ibn Battuta R1993, 2: 309-11; Kauz 2010a.

[126] Blair 1982b, esp. note 54, and Album 1984, 69.

[127] Aigle 2005; Limbert 2004.

[128] Many are illustrated and discussed in Komaroff and Carboni 2002. For book production, see Wright 2013.

[129] Watt and Wardwell 1997, 135 and fig. 63; Folsach 2013, fig. 222c; on Abu Bakr, see Aigle 2005, 101-11.

[130] Morgan 2013.

[131] Gray 1978, figs. 4-18; Blair, 1995; Masuya 2018. See also McCausland 2014, 63-64 and fig. 29.

[132] Watson 2006.

[133] Lambton 1998; Allsen 2001, chap. 14.

[134] Allsen 2001, chap. 15.

[135] Denny 2002 and 2010; Thompson 2010; Blair 2013; Franses 2013.

[136] Watt 2010, figs. 46-47; Franses 2013, figs. 248a and b.

[137] See the comments by Franses 2013 on the necessity of repeated testing.

[138] On the introduction on Chinese motifs, see Kadoi 2009.

[139] Several remarkable ones are in the Hohhot Museum, including one with a blue glaze and inscribed date equivalent to 1309 (Barnes 2010, pl. 7.11) and several with appliqué polychrome decoration (Carswell 1999/2000, pl. 9; McCausland 2014, pl. 22).

[140] Watson 2004, no. Q.7; Watson 2006, 335.

[141] A fine pair of Piling School paintings is in the Tokyo National Museum (TA-142) (illustrated in McCausland 2014, fig. 85). On the motifs and links to blue-and-white porcelain, see Whitfield 1993.

[142] For *lājvardīna*, see Watson 2006, 336; for the unusual Chinese wares found in Inner Mongolia and now in the Shanghai Museum, see Watt 2010, fig. 327.

[143] Komaroff 2002.

[144] National Palace Museum, Taipei and Palace Museum, Beijing: McCausland 2011, figs. 3.9 and 3.21; Watt 2011, fig. 31.

[145] Wilber 1955, no. 51; Blair 2008 and 2013, 131-5.

[146] Blair forthcoming 2020.

[147] O'Kane 1996.

[148] Wilber 1955, no. 48; Blair 2015.

[149] Sims 1982.

[150] Blair 2013.

[151] Watt 2010 figs. 293 and 324; Barnes 2013, figs. 7.6 and 7.36.

[152] Many illustrated in Watt 2011; for cloisonné, see Quette 2011.

[153] Bloom 2001 and 2006.