

Clothing and Textiles Depicted in Goryeo Paintings of Water-moon Avalokitesvara

Sim Yeonok
Professor, Korea National University of Cultural Heritage

Introduction

Renowned for their elaborate forms and unique styles, Buddhist paintings from the Goryeo dynasty (高麗, 918–1392), are considered definitive examples of traditional Korean Buddhist painting for their lofty artistic and historic value. They also offer a glimpse into the clothing trends of the Goryeo period as they realistically depict the forms, textures, and materials of clothing from the era and the patterns applied. In particular, paintings of Water-moon Avalokitesvara (水月觀音, K. *Suwol gwaneum*) illustrate the quintessence of Goryeo dynasty textile arts through their sophisticated expression of both the bodhisattva's clothing in its diverse patterns and the sheer veil that drapes the entire body.

The clothing worn by Water-moon Avalokitesvara and its patterns have been subject to extensive studies by art historians and textile history researchers. However, most of the existing studies have focused on analyzing the patterns from an art history perspective, and few efforts have been directed at empirically analyzing the type of textile depicted in the bodhisattva's clothing and the patterns visible in it through a

comparison with extant textile items from the time.

Approximately thirty-eight paintings of Water-moon Avalokitesvara have survived to this day. Among these, this article focuses on the roughly thirty examples that allow a clear understanding of the organization of the clothing and the applied patterns for a comparison with contemporaneous Chinese and Korean clothing and textiles either extant or as described in literature. The textiles featured on the paintings were compared with surviving Chinese textile items from the Song (宋, 960–1279), Liao (遼, 907–1125), and Yuan (元, 1279–1368) dynasties in order to investigate the characteristics of textile patterns from this period and the symbolism involved. Literature from the time was examined to determine if the names of patterns as currently being applied by researchers are in fact appropriate for describing them.

Based on research into the weaving and patterning techniques from the Goryeo period, the types of textiles featured in Goryeo paintings of Water-moon Avalokitesvara and their related weaving techniques were investigated. Further, the skirt and sheer veil depicted in the paintings, signature elements of the clothing of Water-moon Avalokitesvara, were reproduced by weaving well-known types of silk from the Goryeo period, including *geum* (錦, compound weave silk), *sa* (紗, simple

gauze silk), and *ra* (羅, complex gauze silk). This attempt to reproduce textiles featured in Goryeo Buddhist paintings based on historical research is expected to provide basic material for understanding the clothing culture of the Goryeo period and for more clearly interpreting Buddhist painting from an art history perspective.

Clothing of Water-moon Avalokitesvara and Textile Patterns

Organization of the clothing of Water-moon Avalokitesvara

The clothing featured in paintings of Water-moon Avalokitesvara generally consists of an upper undergarment, skirt, overskirt, sash, and veil. Some Buddhist paintings from the late Goryeo period show a slight deviation from the traditional organization of the bodhisattva's clothing and use of textile patterns (Fig. 1). The *Water-moon Avalokitesvara* housed in Toko-ji Temple (東光寺) in Oita, Japan features a standing bodhisattva who appears to be wearing an additional skirt between the skirt and overskirt. The same arrangement of clothing is seen in the *Amitabha Triad* housed in Daisen-ji Temple (大泉寺) in Yamaguchi, Japan. In the *Water-moon Avalokitesvara* in Yamato Bunkakan (大和文華館) in Nara, Japan, the bodhisattva wears a long, red, narrow strip of ornamental cloth known as a *cheonui* (天衣) in Korean (literally, celestial robe) instead of the upper undergarment known as a *seunggakgi* (僧却崎) in Korean. The red strip with its small roundel pattern is draped over the left shoulder and hangs horizontally below the chest. The skirt features round chrysanthemum patterns rather than the lotus and hexagon pattern commonly applied in many paintings of Water-moon Avalokitesvara. The sheer veil lacks a pattern, which is another iconographical element that differentiates this example in Yamato Bunkakan from other paintings on the same theme.

Characteristics of each element in the clothing of Water-moon Avalokitesvara and major patterns

1. Upper undergarment

The upper undergarment, known as *seunggakgi* or *seunggiji* (僧祇支) in Korean (Skr. *saṃkaksikā*), is worn horizontally below the chest and tied at the shoulder with a strap. The length of the upper garment is difficult to determine, but considering that it is worn below an overskirt, it is likely to have been worn

to reach below the waist. The strap is generally tied at the left shoulder if the bodhisattva is facing left but at the right shoulder if the bodhisattva is facing to the right, as in the case of the *Water-moon Avalokitesvara* dated to 1310 currently housed in Kagami-jinja Shrine (鏡神社) in Saga, Japan. The upper portion of the upper undergarment is generally decorated with a band in a scroll pattern, and the same pattern appears in the shoulder strap. Among the patterns featured in the upper garment, a wave pattern is the most common, followed by a flower pattern and a lattice pattern. The scroll-pattern band features stylized scrolls within which rolled leaves stretch out.

2. Skirt

In most paintings of Water-moon Avalokitesvara, the upper portion of the bodhisattva's skirt is covered by an overskirt, which makes it difficult to precisely determine how the skirt was worn. Diverse bodhisattvas in Goryeo Buddhist paintings usually place a wide pleated cloth tied with a string around the waist. When Water-moon Avalokitesvara is featured seated in paintings, the skirt cannot be observed around the waist but the sidelines and hem of the skirt are seen to feature patterned bands. In the *Water-moon Avalokitesvara* from the late Goryeo period currently housed in Toko-ji Temple and in another example from the collection of Senso-ji Temple (淺草寺) in Tokyo, Japan, the patterned bands are seen over the front of the legs. This indicates that the skirt was fastened to the right at the front. The skirt is long enough to touch the ground, but beaded ornaments lift the hem of the skirt around the knees to reveal both feet. The sideline at the front fastened to the right droops down to the front.

The skirt of Water-moon Avalokitesvara features lotus patterns topping a series of hexagons, a unique combination of patterns rarely seen in other paintings of a Buddha or bodhisattva from the Goryeo period.

3. Overskirt

The overskirt, known as a *yopo* (腰布) in Korean, is a wide cloth worn on top of the skirt and has numerous pleats in the upper portion. A belt is tied over the overskirt and a string attached to the belt droops far downwards. It is hard to clearly identify how the overskirt was worn in paintings of Water-moon Avalokitesvara, but other paintings featuring standing bodhisattvas show it fastened at the right side on the front. Patterns on the overskirt are only barely identifiable in most extant paintings of Water-moon Avalokitesvara. The example in Kagami-jinja Shrine is unique for the visibility of its lattice

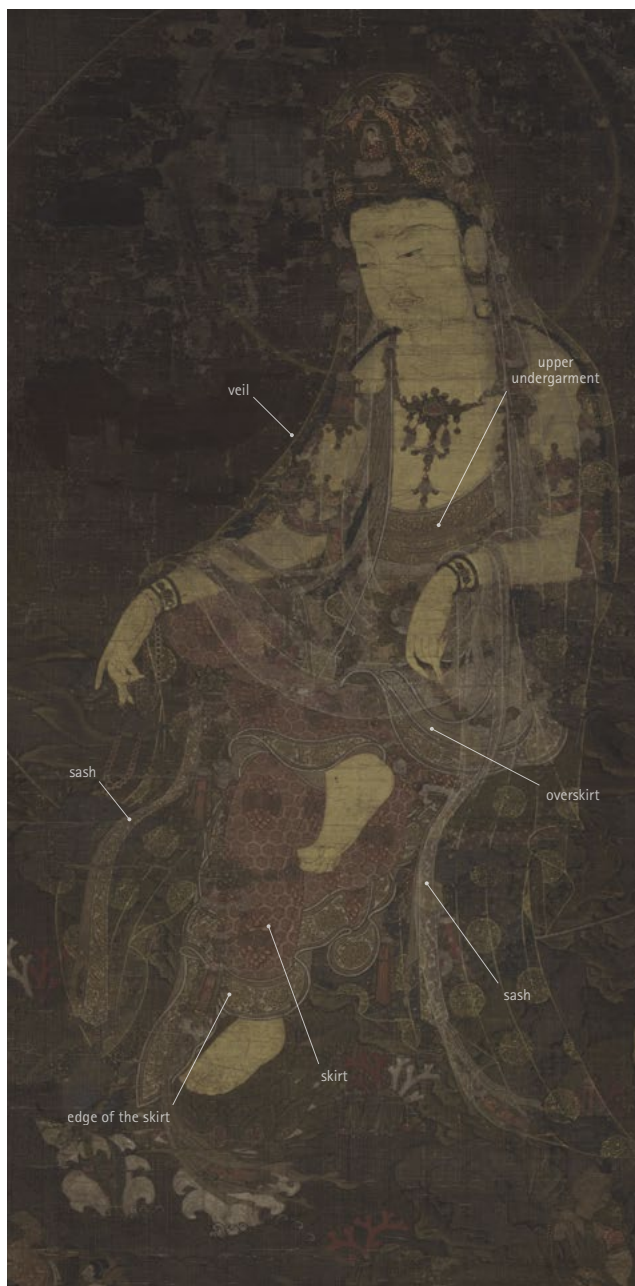


Fig. 1. Clothing of the bodhisattva in *Water-moon Avalokitesvara*. Metropolitan Museum of Art, United States of America

patterns over chrysanthemum patterns in similar hues.

4. Sash

In most paintings of Avalokitesvara, a long and narrow sash tied to the end of a necklace is draped over the arm and down the ankle on both sides of the bodhisattva. The sash is a plain white in the portions between the necklace and the arms, but is adorned with multicolored patterns where placed over the arms. Below the arms, scrolls of either a pomegranate or stylized flower motif known as *bosanghwa* (寶相華, Ch. *bao xiang hua*)

in Korean are seen. In the *Water-moon Avalokitesvara* in Kagami-jinja Shrine, a white sash draped over the left arm shows multicolored patterns and pomegranate scrolls over the arm. These features can also be observed in the sashes depicted in two paintings of *Water-moon Avalokitesvara* in Daitoku-ji Temple (大徳寺) in Kyoto, Japan as well as many other paintings on the theme.

5. Veil

A sheer veil is draped from the jeweled crown through the shoulders and arms and down to the feet of the Water-moon Avalokitesvara. Generally, this veil is draped over the arms in either of two methods. In one method, a part of the right side of the veil is pulled to the left and placed over the left hand. In the other, the veil flows down from the head, splits to the left and right sides, and is placed over each hand. This second type is seen in many paintings of bodhisattvas other than Water-moon Avalokitesvara as well. The veil of Water-moon Avalokitesvara features either snowflake-and-circle patterns or brief diagonal lines without any other pattern. Over these base patterns are painted gold cloud-and-*bonghwang* (鳳凰, Ch. *feng huang*) and roundel patterns.

075

Analysis and Naming of Major Patterns

This chapter focuses on the most common and characteristic patterns featured in the clothing of Water-moon Avalokitesvara in order to analyze their elements and organization and compares them with patterns on contemporaneous textile items to investigate the main features of textile patterns of the era. Further, it examines Chinese and Korean records related to textile patterns at the time the Goryeo paintings of Water-moon Avalokitesvara were being produced in order to consider whether the current names applied to the patterns on the textiles featured in Goryeo paintings of Water-moon Avalokitesvara are appropriate.

Wave pattern

A wave pattern was one of the preferred motifs for decorating textiles and other craftworks during the Goryeo dynasty. This motif could be expressed in diverse shapes, including gentle waves and a long, heavy sea. Wave patterns were most



Fig. 2. Wave pattern on the upper garment in *Water-moon Avalokitesvara*. Tanzan-jinja Shrine, Japan

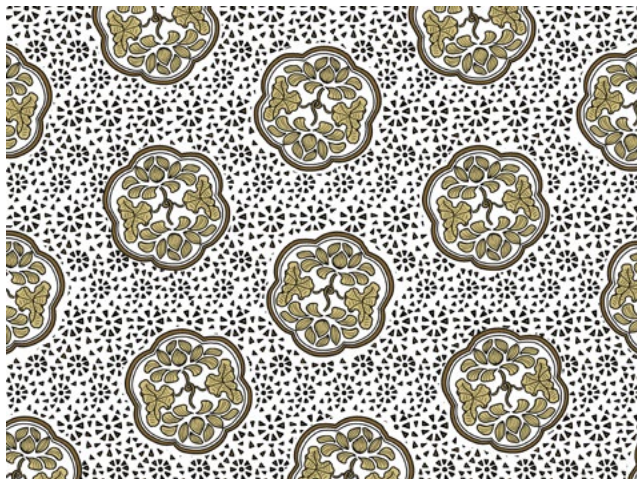


Fig. 4. Diagram of lattice pattern on the overskirt in *Water-moon Avalokitesvara* in Kagami-jinja Shrine, Japan (Diagram by the author)

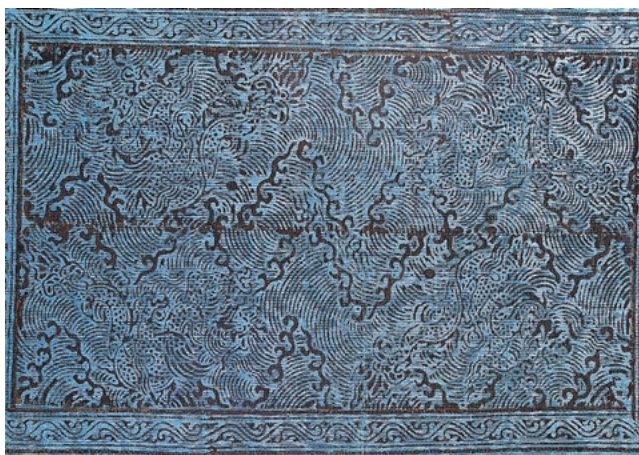


Fig. 3. Gamboge *ra* silk with wave-and-dragon fish pattern from the *Amitabha* statue in Munsusa Temple (above) and a diagram (below). Sudeoksa Museum (Diagram by the author)

commonly applied in the upper garment and outer robe of the Buddha or bodhisattvas in Goryeo Buddhist paintings (Fig. 2).

Gamboge *ra* silk with wave-and-dragon fish pattern (印雌黃水波魚龍紋羅) was originally enshrined inside a gilt-bronze *Amitabha* Buddha (dated to 1346) in Munsusa Temple

(文殊寺) in Seosan and is currently housed in the Sudeoksa Museum. It features dragon-fish patterns over wave patterns (Fig.3). Records mentioning the use of wave patterns on textiles include “茶褐水波紋地兒四花襖子” (*dagal supamunji hyeonga sabwa oja*) meaning “dark brown female overcoat with wave and four-flower pattern” in the *Original Imprint of the Nogeoldae*, a sourcebook for study of Chinese language, and “茶褐水波浪” (*dagal suparang*) meaning “dark brown wave pattern” in the *Beonyeok nogeoldae* (翻譯老乞大, The Nogeoldae in Translation) published in 1510. Both “水波” (*supa*) and “水波浪” (*suparang*) were translated into Korean language as “*mulgyeol*” meaning “wave.”

Lattice pattern

The overskirt depicted in *Water-moon Avalokitesvara* at Kagami-jinja Shrine features major patterns consisting of a lotus flower inside a six-petaled frame against a background of chrysanthemum patterns (Fig. 4). This style of lattice pattern in which main motifs inside frames of particular shapes appear against background patterns is known as *gwamun* (窠紋, also transcribed as 科紋) in Korea, *kewen* in China, and *kamon* in Japan. A lattice pattern is among the main textile patterns from the Goryeo period under Mongol rule and in the Jin (金, 1115–1234) and Yuan periods of China.

Sa silk with dragon-and-lattice pattern over scroll pattern (蔓草紋地窠龍紋紗), which was found among objects enshrined inside an *Amitabha* statue dated to 1302 and is currently housed in the Onyang Folk Museum, features main patterns of a dragon set inside a double-layered lozenge frame with *lingzhi* scroll patterns in the background (Fig. 5). The patterned *neung* silk (紋綾, K. *mulleung*) discovered inside an



Fig. 5-1. *Sa* silk with dragon-and-lattice pattern over scroll pattern over scroll pattern. 1302. Discovered inside an Amitabha Statue from 1302. Onyang Folk Museum (Photograph by the author)

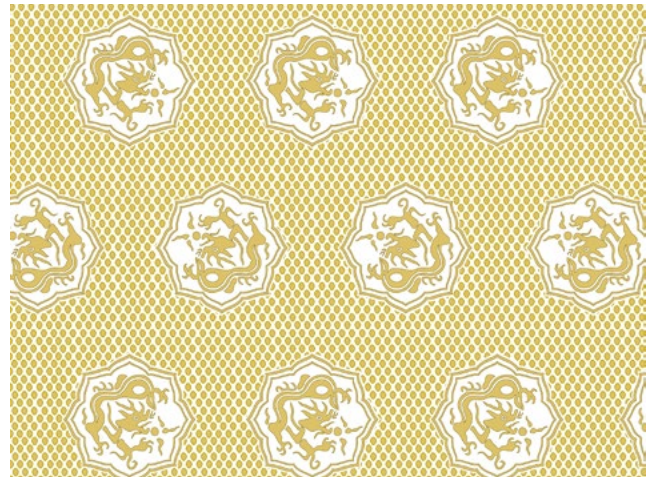


Fig. 5-2. Diagram of Fig. 5-1 (Diagram by the author)



Fig. 6. Patterns on the skirt in *Water-moon Avalokitesvara*. Kōzan-ji Temple, Japan

Amitabha statue at Munsusa Temple features similar patterns. This single-colored twill-woven silk with a secret pattern (暗花紋, K. *amhwamun*, Ch. *an hua wen*) features round-edged lozenge patterns in the background and main patterns of a dragon inside an eight-petaled frame. A dragon is one of the main motifs for lattice patterns on textile objects from the Goryeo Period.

Lotus-and-hexagon pattern

In most paintings of *Water-moon Avalokitesvara*, the bodhisattva wears a reddish skirt with sparse lotus-flower patterns over hexagonal patterns in the background. In each hexagon, a small flower appears inside a white frame (Fig. 6). In most cases, the flowers and hexagons are regularly shaped, but in the *Water-moon Avalokitesvara* at Senso-ji Temple, the hexagons are elongated lengthwise and the small flowers inside



Fig. 7. Patterns on the skirt in *Water-moon Avalokitesvara*. Senso-ji Temple, Japan

them are vertically symmetrical (Fig. 7). Lotus and hexagon patterns are seen only in the skirt of *Avalokitesvara*. Background hexagon patterns are commonly found in many surviving textiles from the Goryeo and Yuan dynasties. These extant examples are significant as they provide actual examples of the

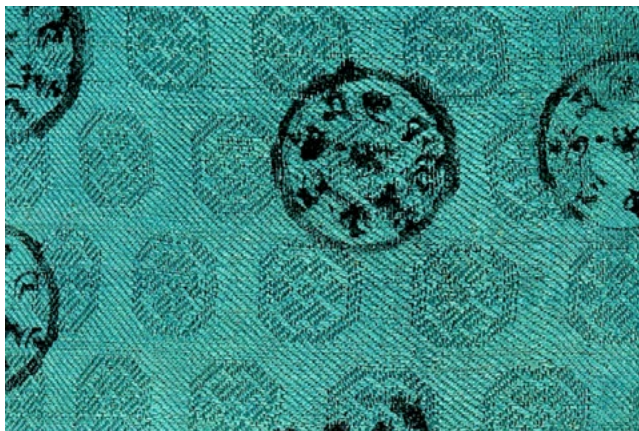


Fig. 8. Blue patterned *neung* silk with flower-and-hexagon pattern. 1302. Discovered inside an Amitabha Statue from 1302. Onyang Folk Museum (Photograph by the author)



Fig. 9. *Geum* silk with lotus pattern. Yuan. Excavated in Alar, Xinjiang, China



Fig. 10. Patterns on the veil in *Water-moon Avalokitesvara*. Choraku-ji Temple, Japan

hexagon patterns expressed in Goryeo paintings of *Water-moon Avalokitesvara*. Blue patterned *neung* silk with flower-and-hexagon pattern (青色六角花紋綾) also originally enshrined inside the Amitabha statue from 1302 mentioned above is among these examples (Fig. 8).

In general, lotus flower blossoms and leaves form symmetrical pairs in the skirt of *Water-moon Avalokitesvara*, but the shapes of the lotus flowers vary among paintings. In one pattern unit, a pair of lotus blossoms or a pair of lotus leaves face each other. There is no frame encircling these blossoms and leaves. The stems are intertwined to connect the blossoms and the leaves so that they form a unit of the pattern. These units are

crisscrossed like courses of bricks. A similar lotus pattern can be seen in *geum* silk with lotus pattern (重蓮錦) from the Yuan dynasty excavated in Alar (阿拉兒) in Xinjiang Province, China (Fig. 9). As hexagons symbolize water, lotus-and-hexagon patterns in the skirt of *Water-moon Avalokitesvara* represent lotus flowers floating in water.

Snowflake-and-circle pattern

The bodhisattva's veil in paintings of *Water-moon Avalokitesvara* features either short diagonal lines without any other element or geometric patterns in which circles and hexagons overlap (Fig. 10). These geometric patterns are among the typical features of paintings of *Water-moon Avalokitesvara* from the Goryeo and Chinese Ming (明, 1368–1644) periods. They are also seen in Goryeo-period Buddhist paintings of other bodhisattvas.

These patterns have generally been referred to as hemp leaf patterns (麻葉文, K. *mayeommun*) since they were so named for Japanese art due to their resemblance to hemp leaves. The hemp leaf pattern is known to have originated in the Heian period (平安時代, 794–1185) and gained popularity during the Edo period (江戸時代, 1603–1868) in Japan, but there is no related literary evidence.

The pattern on the veil of *Water-moon Avalokitesvara* differs from a hemp leaf pattern in that it is based on serial circles while a hemp leaf pattern is based on serial hexagons. On the veil, hexagons intersect with circles inside regularly overlapping circles, creating the appearance of a snowflake. Diverse forms of circle patterns that overlap in four or six directions are featured on the robe of the main Buddha in an *Amitabha Triad* in a private Japanese collection, in the *Amitabha Triad* (dated 1309) in Uesugi-jinja Shrine (上杉神社) in

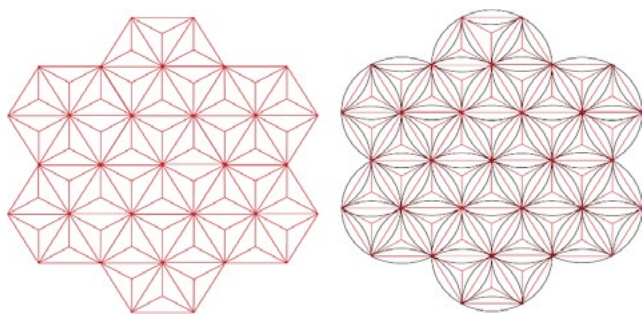


Fig. 11. Hemp leaf pattern (left) and snowflake-and-circle pattern (right) in *Water-moon Avalokitesvara*. (Diagram by the author)

Yamagata, Japan, the *Amitabha and the Eight Great Bodhisattvas* (dated 1309) in Dainenbutsu-ji Temple (大念佛寺) in Osaka, Japan, and the *Vairocana Triad* in the Museum of East Asian Art in Cologne, Germany.

In the *Yingzao Fashi* (營造法式, Treatise on architectural methods or State building standards) from the Song dynasty, circles overlapping in four directions are called a “quadruple circle pattern,” those overlapping in six directions are known as a “sextuple circle pattern,” and circles with a flower inside them are called a “sextuple circle and flower pattern.” A chapter on military uniforms (仗衛服條) in the *Xuanhe fengshi Gaoli tujing* (宣和奉使高麗圖經, Illustrated record of the Chinese embassy to the Goryeo court in the Xuanhe era) mentions the use of *geum* silk with a circle pattern (毬紋錦) for military uniforms. The *Shu jin pu* (蜀錦譜, *Observations on Shu Brocade*) by Fei Zhu (費著) from the Yuan dynasty references “雪花球路錦,” meaning “*geum* silk with snowflake-and-circle pattern.” Given that the pattern on the veil of *Water-moon Avalokitesvara* with its repetition of overlapping hexagons and circles resembles snow or ice crystals, this pattern can be called a “snowflake-and-circle pattern” (雪花毬紋) as described in the *Shu jin pu*. The geometric pattern on the veil of *Water-moon Avalokitesvara* differs in shape from a hemp leaf pattern. The literature above also supports the assertion that this pattern should be named the “snowflake-and-circle pattern” (Fig. 11).

Round pattern

The round patterns elaborately painted in gold on the veil of *Water-moon Avalokitesvara* are among the typical features of Goryeo Buddhist paintings (Fig. 12). Round patterns are regularly arranged across each other like courses of bricks.



Fig. 12. Round pattern with a cloud motif in *Water-moon Avalokitesvara*. Metropolitan Museum of Art, United States of America

Generally, the patterns in the upper row are reversed compared to those in the lower row. Such an arrangement of patterns follows the trends of textile patterns from the Goryeo and Yuan periods, and was referred to as “搭子紋” (K. *tapjamun*; Ch. *da zi wen*) in contemporaneous literature.

Round patterns generally include clouds, lotus, or chrysanthemum motifs. The veil depicted in the *Water-moon Avalokitesvara* in Shojuraigo-ji Temple (聖衆來迎寺) in Shiga, Japan features round patterns consisting of three lotus leaves. Round patterns with a cloud motif (圓形雲氣紋) are common in the robe of Amitabha Buddha, as exemplified by the *Amitabha Triad* from the fourteenth century at the Leeum, Samsung Museum of Art; the *Amitabha and the Eight Great Bodhisattvas* in Joukyou-ji Temple (浄教寺), Nara, Japan; the *Amitabha Triad* in Kakurin-ji Temple (鶴林寺), Hyogo, Japan; the *Amitabha Triad* in Chion-in Temple (知恩院), Kyoto, Japan; and the *Amitabha Buddha* in Musée Guimet, Paris, France. This pattern has generally been referred to as a scroll pattern (唐草紋), but an analysis of its form and organization reveals that an S-shaped mass of clouds forks in different directions, just as in the cloud pattern on the clothes expressed in Goryeo Buddhist paintings. The only difference is that thin tails from the clouds, which are lowered down in the cloud pattern, are rolled upward to create a round form popular at the time.



Fig. 13. Sa silk with round pattern with lattice motif and colored flower pattern. 1302. Discovered inside the Amitabha Statue from 1302. Sudeoksa Museum (Photograph by the author)

Extant textiles from the Goryeo period display round patterns made using diverse techniques including weaving, embroidery, and gilding. Sa silk with round pattern with lattice motif and colored flower pattern (團窠形紋彩花紗), which was originally enshrined inside the Amitabha statue from 1302, features round patterns applied using the *janghwa* technique (Fig. 13). Red *na* silk with gilt flower pattern (銷金紅花羅), which was discovered within the same statue, features gilt floral medallions set against vivid red silk. The petals overlap to create round medallion patterns, which are arranged in turn like rows of bricks. The veil in the painting of *Water-moon Avalokitesvara* in Daitoku-ji Temple shows the same organization and arrangement of round patterns.

There is no consensus regarding what this type of pattern was called during the Goryeo period. A record from the 32nd year of the reign of King Munjong (1078) in the *Goryeosa* (高麗史, History of Goryeo) mentions a “disc pattern with cloud-and-crane motif” (盤毬雲鴈細) as the pattern on some multi-colored *geum* silk (雜色川錦). The *Jeungbo munheon bigo* (增補文獻備考, The revised and enlarged edition of the comparative review of records and documents) mentions a “textile with gold and silver lines and disc pattern with a dragon-and-net motif” (金銀線織成黃盤龍罽褥). The “Military uniforms” section of the *Xuanhe fengshi Gaoli tujing* records “elite soldiers of the Dragon-tiger Guards (龍虎上超軍) wear a uniform with a gilt disc pattern with a flower motif and embroidery, and junior seamen of the same guards (龍虎下海軍) wear a uniform with an embroidered disc pattern with an eagle motif.” It also notes “soldiers of the Capital Patrol (金吾仗衛軍) wear a uniform in patterned *na* silk with a few large floral medallion patterns.” Therefore, round patterns appear to resemble the disc patterns (盤紋) or large floral medallion patterns (大團花) which are frequently mentioned in records from the Goryeo period.



Fig. 14. Diagram of pomegranate-and-bead pattern on the sash in *Water-moon Avalokitesvara* in Kagami-jinja Shrine, Japan (Diagram by the author)

Pomegranate-and-bead pattern

In paintings of *Water-moon Avalokitesvara*, pomegranate-and-bead patterns are featured on the sashes and at the edges of the skirt of the bodhisattva, as best illustrated in the *Water-moon Avalokitesvara* in Kagami-jinja Shrine (Fig. 14). In this painting, pomegranate flowers are depicted similarly to a *bosanghwa* flower. The flowers expressed on the edges have their petals rolled inside while those on the sashes have petals rolled outwards and a line of bead-like arils pouring out of an ovary. The stem of the flower is connected to exaggeratedly stylized scrolls. Another good example of pomegranate-and-bead pattern can be found in the *Amitabha Buddha* in Jenrin-ji Temple (禪林寺) in Kyoto, Japan.

The *Yingzao Fashi* classifies rolled petal flowers (卷叶花) into pomegranate flowers, *boahwa* flowers (寶牙華, Ch. *bao ya hua*), and *bosanghwa* flowers and provides related illustrations. This means that it distinguishes pomegranate flowers from *bosanghwa* flowers. A pomegranate flower here refers to a flower from which beads are pouring out, as depicted in paintings of *Water-moon Avalokitesvara* and other Buddhist paintings from the Goryeo period.

In China, pomegranate patterns were applied on textiles from the Liao and Yuan dynasties, but they featured only the arils. The image of beads pouring out of flowers can be seen only in craftworks from the Goryeo period. Pomegranate-and-bead patterns were frequently applied on the clothing in Buddhist paintings and scriptures.



Fig. 15-1. *Geum* silk with auspicious flower pattern. 12th century. Excavated from Bongseoritap Pagoda, Mungyeong. National Museum of Korea (Photograph by the author)

This type of pattern, termed pomegranate-and-bead pattern (石榴寶珠紋) in this article, has commonly been referred to as the *bosanghwa* flower scroll pattern. However, this name fails to consider the beads pouring out of the ovary of a pomegranate flower, and therefore should be reconsidered. The patterns expressed at the edges of the clothing in paintings of Water-moon Avalokitesvara include beads, a significant symbol in Buddhism, and should be renamed pomegranate-and-bead pattern.

Types of Textiles and Method of Applying Patterns

During the Goryeo period, textiles were produced mainly by government-commissioned artisans, rural craftspeople, or Buddhist monk artisans. Types of patterns and techniques for applying them were both imported to and exported from Goryeo through active exchanges with the Liao, Jin, and Yuan dynasties in China.

Patterns were applied to textiles by weaving patterned textiles or through variegation, resist dyeing, embroidery, or gilding. No textiles have been excavated from Goryeo-period tombs. The surviving examples were all originally enshrined inside Buddhist statues or pagodas, handed down in ancestral shrines, or held by Buddhist temples. Most of these are only fragments, but they generally retain their original colors and physical characteristics, thereby providing sources for investigating the textile arts during the Goryeo period.

This section analyzes the textiles and patterns depicted

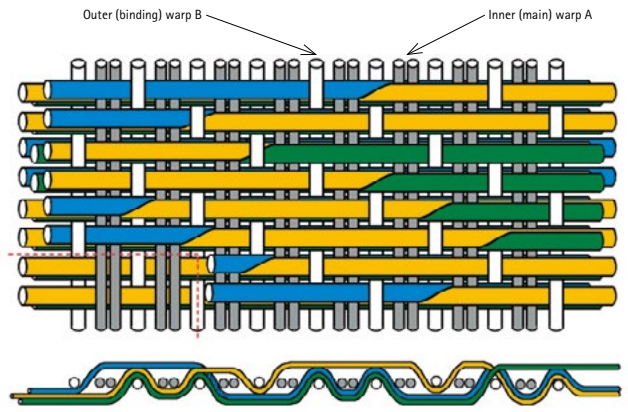


Fig. 15-2. Organization of *geum* silk (Diagram by the author)

in the skirt and veil, the most characteristic elements of the bodhisattva's clothing, in paintings of Water-moon Avalokitesvara.

Geum silk for the skirt

The skirt of Water-moon Avalokitesvara features lotus-and-hexagon patterns in various colors, including red, white, and green. Patterned silk from the Goryeo period includes *gi* (綺), *neung* (綾), *geum* (錦), and *jikgeum* (織金). Among them, only *geum* silk can express patterns in diverse colors. *Geum* silk is a polychrome compound weave created using pre-dyed thread in multiple colors to allow lavish patterns. The aforementioned Yuan-period textile with lotus patterns similar to those on the skirt of Water-moon Avalokitesvara is also made of *geum* silk (Fig. 9). Another Yuan-period textile in *geum* silk with a lattice-and-hexagon pattern (六角形地窠紋錦) was excavated from Jin ning lu (集寧路) in Inner Mongolia. This suggests that the bodhisattva's skirt in paintings of Water-moon Avalokitesvara must be a depiction of *geum* silk.

In the Goryeo period, *geum* silk was produced by designated artisans known as *gapjang* (錦匠). It was stored in a warehouse in Gyeongju dedicated to storing silk known as *geumjik gapbang* (錦織甲坊). Documents from the Goryeo period mention diverse types of *geum*, including *honggeum* (紅錦, red *geum*), *chaengeum* (綵錦, figured *geum*), *paengeum* (貝錦, nacre *geum*), *japsaek cheongeum* (雜色川錦, multi-colored high quality *geum*), *ungeum* (雲錦, cloud *geum*), *mungeum* (紋錦, figured *geum*), *rangeum* (鸞錦, *geum* with a mythical *ran* bird pattern), *jungeum* (重錦), *seogeum* (瑞錦, auspicious *geum*), *yeonjakmungeum* (練鵲文錦, *geum* with a shrike pattern), and *gumungeum* (毬文錦, *geum* with a ball pattern), which together indicates how *geum* silk of the time was produced in a range of patterns.

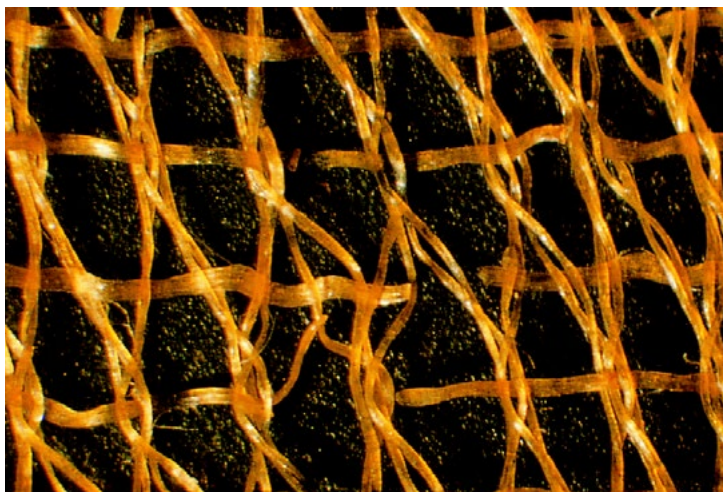


Fig. 16-1. Detail of Goryeo-period *ra* silk. 1302. Discovered inside the Amitabha Statue from 1302. Onyang Folk Museum (Photograph by the author)

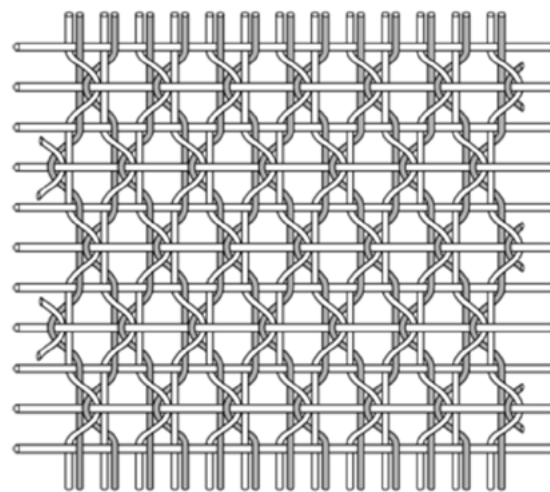


Fig. 16-2. Diagram of Fig. 16-1 (Diagram by the author)

Extant *geum* silk items from the Goryeo period include *geum* silk with lotus pattern (瑞花紋錦) dated to the twelfth century, which was discovered from inside a pagoda known as Bongseoritap Pagoda (鳳棲里塔) in Bongseo-ri in Mungyeong and is currently housed in the Daegu National Museum (Fig. 15). This textile is a weft double weave made by using 1/2 twill weave. Sky blue, violet, yellow, light brown, and green colors were applied. The background is triple woven and the portions with stamen patterns are quadruple woven to express the designs.

Sa and *ra* silk

The veil of Water-moon Avalokitesvara is thin and transparent. It is flowing, but remains stiff enough to not to adhere to the body. The bodhisattva's veil appears to be made of silk. Raw silk is as stiff as ramie cloth, but it can be softened through refinement. Compared to ramie cloth, silk is easier for producing superfine fibers, and it is therefore likely that the transparent veil of Water-moon Avalokitesvara was made of silk.

This veil has generally been referred to as a *sara* (紗羅), which means translucent gauze. Both *sa* and *ra* are gauze silk, but the details of their weaving differ and each is therefore called by a unique name according to the features of its weave.

Among the veils of Water-moon Avalokitesvara, those with a snowflake-and-circle pattern are thought to be made with a patterned *sa* silk (紗, simple gauze silk) known as *munsa* (紋紗). Those without patterns beyond diagonal lines are thought to be made of an unpatterned *ra* silk (羅, complex gauze silk) known as *mumulla* (無紋羅). Four strands of the warp are twisted to weave *ra* silk. The twisted parts are crossed at the top

and bottom and form lozenge patterns through a repetition of the crossing. The veils depicted in paintings of Water-moon Avalokitesvara demonstrate that their painters possessed a credible knowledge of the organization of *ra* silk and expressed its features in refined drawing.

The Goryeo era marked the peak period for *ra* silk production when diverse types of *ra* silk were created and used. Records show that the skill of weaving *ra* silk was considered highly valuable and artisans dedicated to the production of this textile were designated by the state. The *Goryeosa* frequently mentions diverse types of *ra* silk, including patterned *ra* (紋羅, *mulla*), embroidered *ra* (繡羅, *sura*), gilt *ra* (金箔羅, *geumbangna*), gold *ra* (織金羅, *jikgeumna*), and raw *ra* (生羅, *saengna*), which indicates that advanced techniques of *ra* weaving were available. Since the Three Kingdoms period, *ra* silk was used for the official attire of kings, civil and military officials, and military uniforms, and this tradition continued through to the Goryeo period. Records from the Goryeo era mentioning *ra* silk, including patterned *ra* silk and resist-dyed *ra* silk, indicate that diverse types of *ra* silk were used at the time.

The *Xuanhe fengshi Gaoli tujing* states that high quality patterned *ra* silk was skillfully woven in Goryeo. The *Samdobu* (三都賦, Rhapsody of three provinces) by Choe Ja (崔滋, 1188–1260) includes a phrase noting “In Gyerim (鷄林) and Yeongga (永嘉, present-day Gyeongju and Andong), people breed silkworms and spin silk to weave a refined *ra* silk as soft as smoke or fog that could float away if blown.” This description recalls the appearance of the sheer veil depicted in Goryeo Buddhist paintings.

Extant textiles from the Goryeo period include non-

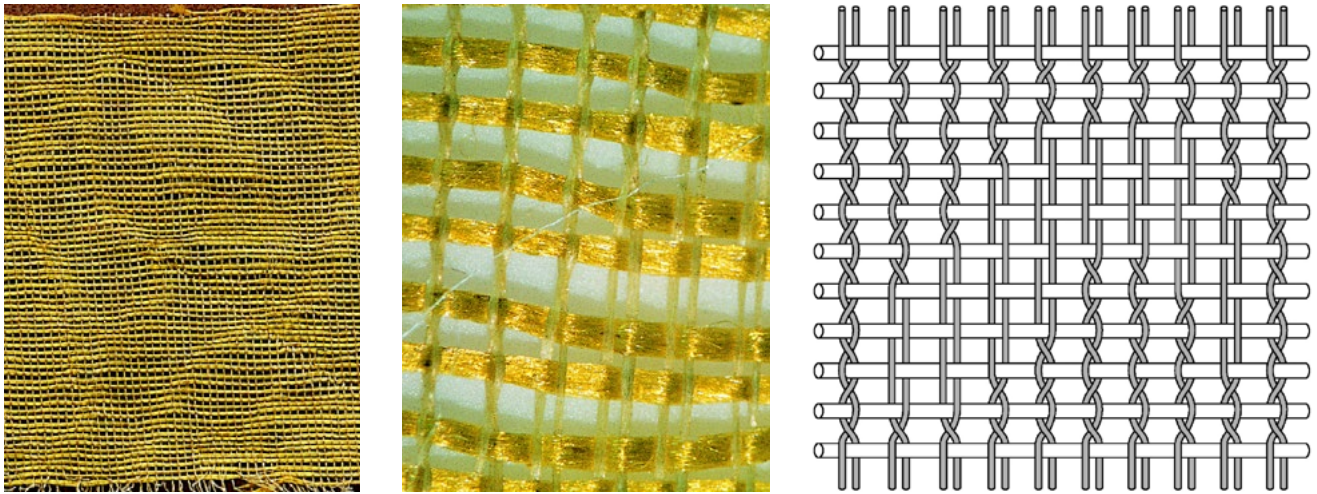


Fig. 17. Two-colored *sa* silk with four leaves and lattice over scroll pattern (left), detail (middle), and a diagram (right). 1346. Discovered inside the Amitabha Statue in Munsusa Temple. Sudeoksa Museum (Photograph and diagram by the author)

patterned *ra* silk in various colors. The yellow *ra* silk (黃色素羅) discovered inside the aforementioned Amitabha statue from 1302 is roughly woven using superfine fibers and shows a veil-like transparency (Fig. 16).

The veil with snowflake-and-circle pattern in paintings of Water-moon Avalokitesvara appears to be a depiction of patterned *sa* silk with a double weave warp. Such patterned *sa* silk came into wide use from the late Goryeo period when drawlooms with heddles for weaving *sa* were created. Extant examples of patterned *sa* silk from the Goryeo period include two-colored *sa* silk with four leaves and lattice over scroll pattern (四葉窠草花紋二色紗) (Fig. 17), which was enshrined within the Amitabha statue in Munsusa Temple in 1346. The warp is white raw silk woven with light yellow boiled silk threads to give a soft but crisp feel. The background is a double-woven warp with plain threads, and the parts with patterns are plain woven.

Expression of gold round pattern on the veil

In paintings of Water-moon Avalokitesvara, the bodhisattva's veil is lavishly decorated with gold round patterns, including a cloud-and-*bonghwang* motif. During the Goryeo period, gold patterns were expressed on textiles by weaving in golden threads, embroidering with golden threads, or gilding. Weaving and embroidering with golden threads are not likely to be able to express the intended transparency of a sheer veil due to the weight and volume of the threads. It is therefore likely that paintings of Water-moon Avalokitesvara depict gilded or gold-painted patterns on the veil.

Advanced gilding techniques had been developed by the Goryeo era, and records indicate that many textiles with gilt

patterns were sent to China. A record from the sixth month of the 26th year of the reign of King Munjong (1072) in “Sega” (世家, Chronicles) 8, the ninth volume of the *Goryeosa*, reads, “Among the articles dispatched to the Song dynasty through envoys are a king’s robe and yellow flannel jacket (黃罽衫) wrapped in a red double-layered cloth with a gilt pattern (銷金紅羅袂復) and king’s red flannel casual clothes, also wrapped in the same kind of cloth. They were all placed inside a silver-inlaid black lacquered box.” It also includes a passage reading “Two gold boxes were placed inside a double-layered flannel pouch (罽袂袋) and wrapped in a *ra* silk with gilt and red plum-blossom patterns (銷金紅梅花羅) and then covered by a double-layered *ra* silk cloth with a red plum-blossom pattern (紅梅花羅袂帕).” These records indicate that gilt patterns were preferred for decoration of *ra* silk during the Goryeo period. The word “*sogeu*m” (銷金), literally meaning “melted gold,” was used to refer to gilding or gilt patterns during the Goryeo period and the Song, Liao, Jin, and Yuan periods of China.

The Amitabha Buddha statue from 1302 mentioned above included two textiles with a gilt pattern. Among them, red *ra* silk with gilt flower pattern (鎖金紅花紋羅) features gilt floral medallion patterns over a non-patterned red *ra* silk with a quadruple weave warp that appear nearly identical to the patterns on the bodhisattva’s veil in paintings of Water-moon Avalokitesvara (Fig. 18).

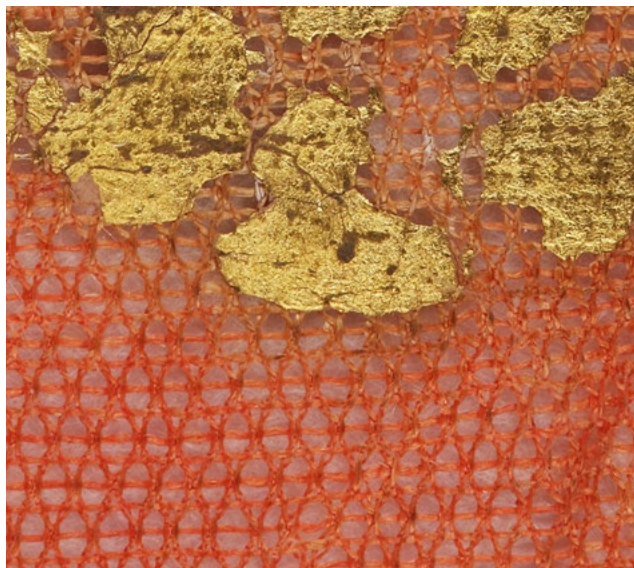


Fig. 18. Red *ra* silk with gilt flower pattern (left) and detail (right). 1302. Discovered inside the Amitabha Statue from 1302. Onyang Folk Museum (Photograph by the author)

Reproduction of Fabric Depicted in Paintings of Water-moon Avalokitesvara

Reproduction of *geum* silk

084 *Geum* silk includes a warp-faced compound silk known as *gyeongeum* (經錦), which features patterns applied using several colored warp threads, and also a weft-faced compound weave silk known as *wigeum* (緯錦), which displays patterns applied using several colored weft threads. The abovementioned *geum* silk with auspicious flower pattern discovered from inside Bongseoritap Pagoda in Mungyeong is identified as weft-faced compound weave silk with a 1/2 twill weave. Based on the analysis of this textile, the bodhisattva's skirt with a lotus-and-hexagon pattern featured in paintings of Water-moon Avalokitesvara was reproduced using weft-faced compound weave silk. The size of the pattern was determined by taking into account the size of the skirt and the proportions of the body of the bodhisattva in the *Water-moon Avalokitesvara* at Kagami-jinja Shrine. The density of the textile and the thickness of the threads were based on *geum* silk with auspicious flower pattern housed in the Daegu National Museum. The size of the repeated pattern is approximately 3.8 centimeters wide and 4.5 centimeters high (Fig. 19).

During the Goryeo period, *geum* silk was produced using a drawloom that required a weaver and a draw boy to control and lift the figure harness. The textile for the reproduction of the bodhisattva's skirt was woven using a semi-manual jacquard loom.

Reviving a *ra* weaving technique and the reproduction of *ra* silk

Ra silk is woven with four warp threads and one weft thread crossed, as if making a net. The sets of four warps and one weft are repeated alternating left and right. This raises the porosity and creates a transparent gauzy texture. *Ra* weaving requires a special heddle system that allows the twisting of the warp, and the reed used for weaving ordinary textiles cannot be applied in *ra* weaving. As the tradition of *ra* weaving was interrupted in the mid-Joseon period (朝鮮, 1392–1910), the details of the technique are difficult to identify. In addition, as *ra* silk cannot be woven on modern automatic looms, it is virtually impossible to weave *ra* silk today.

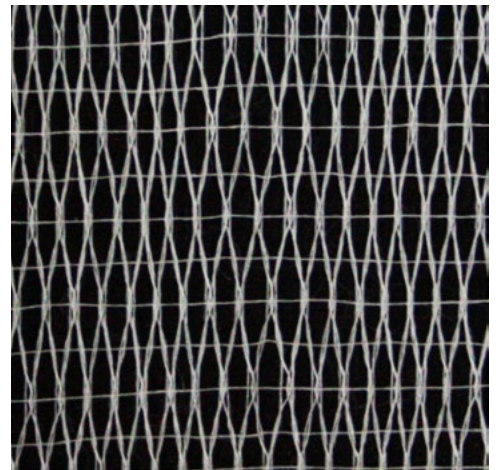
Therefore, to reproduce the veil of Water-moon Avalokitesvara, a heddle system that allows the weaving of *ra* silk was invented and an appropriate loom was devised. After two years of preparation, *ra* silk was finally recreated. Parts of a traditional loom that are used to lift warps were modified for *ra* production. As modern metal heddles could not be used, heddles were manually crafted using threads. Three types of heddles were created: one for the right twist, one for the left twist, and one for the ground (Fig. 20).

Reproduction of *sa* silk with a snowflake-and-circle pattern

A veil with a snowflake-and-circle pattern was reproduced using *sa* silk with a double warp twist. To allow a flowing softness but still a slight stiffness that would prevent the veil from adhering to the body, raw silk was used for the warp and boiled silk was used for the weft. The base textile was woven as *sa* silk with a double



Fig. 19. Reproduced lotus-and-hexagon pattern. Research Institute of Traditional Textile Restoration (Photograph by the author)



085

Fig. 20. Weaving *ra* silk (left) and reproduced *ra* silk (right). Research Institute of Traditional Textile Restoration (Photograph by the author)



Fig. 21. Reproduced *sa* silk with a round gilt pattern and snowflake-and-circle pattern. Research Institute of Traditional Textile Restoration (Photograph by the author)

warp twist and the patterns were woven in a plain weave to give a transparent appearance to the veil.

Round patterns with a cloud motif were gilded onto the veil with its snowflake-and-circle pattern. For the gilt patterns, a woodblock was produced for impressing round patterns 11 centimeters in diameter, proportionate to the round pattern seen on the veil in paintings of Water-moon Avalokitesvara. First, patterns were drawn and copied onto the woodblock for carving with a chisel and burin. The chisel was used to remove broad areas such as edges, and the burin was used to carve relief pattern. Fish glue was applied to the woodblock with its carved patterns and then pressed onto the fabric. After a time, gilt was spread over the fabric and rubbed. When the gilt was well attached to the fabric, the residual gilt over the unglued parts was brushed away so that only the gilt patterns appeared on the fabric. Round gilt patterns were arranged across each other in the same manner as on the veil in paintings of Water-moon Avalokitesvara (Fig. 21).

Conclusion

This article investigated the patterns visible on the clothing of the bodhisattva in paintings of Water-moon Avalokitesvara based on surviving textiles and records from the Goryeo period. It also inferred from these paintings the materials depicted in the clothing of the bodhisattva and reproduced the relevant textiles.

The study revealed that a wide range of patterns were applied in the clothing of Water-moon Avalokitesvara. The motifs include wave, lattice, circle, lotus and hexagon, scroll, snowflake and circle, disc, floral medallion, and pomegranate and bead patterns. Based on the findings, this article suggests renaming several of these patterns. A pattern on the bodhisattva's veil previously known as hemp leaf pattern was renamed snowflake-and-circle pattern. It was found that the scroll pattern on the edges and patterned bands of the skirt that was previously known as a *bosanghwa* scroll pattern would be more accurately dubbed a pomegranate-and-bead pattern.

The patterns depicted on the bodhisattva's clothing in paintings of Water-moon Avalokitesvara and their methods of expression indicate that the paintings realistically depicted contemporaneous textiles. The skirt appears to be made of

geum silk, a richly patterned compound weave silk. As for the veil, versions with no pattern other than diagonal slashes were determined to be made of a non-patterned complex gauze silk known as *ra* rather than ramie fabric as previously believed. The veil with a snowflake-and-circle pattern is thought to be made of a patterned simple gauze silk known as *sa*.

In this study, the skirt with a lotus-and-hexagon pattern was reproduced based on an analysis of surviving Goryeo examples of weft-faced compound weave silk known as *geum*. The two types of veils were reproduced respectively using non-patterned *ra* silk and *sa* silk with snowflake-and-circle pattern. The *ra* weaving technique, which had been unknown due to the discontinuation of the tradition, was recovered and applied in order to weave the non-patterned *ra* silk. A veil with a snowflake-and-circle pattern was reproduced using patterned *sa* silk for a transparent look, and round patterns with a cloud motif were applied. In this manner, the veil of Water-moon Avalokitesvara, which had been known and studied only as an element of Buddhist painting, was recreated using actual materials in order to physically illustrate the aesthetics applied in images of Water-moon Avalokitesvara.

The study revealed that the bodhisattva's clothing and the patterns applied in Goryeo-period paintings of Water-moon Avalokitesvara were not simply painterly expressions. They were in fact realistic depictions of the characteristics of textiles from the period and the main features of the patterns applied to them, including their formal features and composition.

The *geum* and *ra* silk depicted in Goryeo-period paintings of Water-moon Avalokitesvara were textiles of excellent quality woven using the most advanced techniques of their time. In particular, *ra* silk was among the definitive textiles of Goryeo. It required considerable time and effort for its production and was well known as far away as China. Its transparent appearance left a brilliant and mysterious impression. These textiles woven using techniques advanced for their time were depicted in religious art such as paintings of Water-moon Avalokitesvara. The sophisticated depiction of the bodhisattva wearing clothing of exquisite beauty conveys the devout prayers of the Buddhist monk painters who attempted to ideally represent a Buddhist utopia.

This article is an abridged and revised English version of “Fabrics and Fabric Motifs Depicted in Goryeo Water-moon Avalokitesvara” (고려불화 수월관음도의 복식식물과 문양), previously published in 2012 in *Korean Journal of Art History* (美術史學研究) 273.

Image Sources

Fig. 2: *The Buddhist Painting of Goryeo Dynasty*, 1996, 162, Fig. 73, Seoul: Sigongsa

Fig. 9: *2,000 Years of Korean Textile Patterns*, 2006, 64, Fig. 3.08-1, Seoul: Samwha Printing

Fig. 10: *The Buddhist Painting of Goryeo Dynasty*, 1996, 197, Fig. 93, Seoul: Sigongsa

Selected Bibliography

Primary Sources

- Chen, Shou (陳壽). *Sanguozhi* (三國志, History of Three Kingdoms).
- Jeong, Inji et al. (정인지 외). 1454. *Goryeosa* (高麗史, History of Goryeo).
- Xu, Jing (徐兢). 1123. *Xuanhe fengshi Gaoli tujing* (宣和奉使高麗圖經, Illustrated record of the Chinese embassy to the Goryeo court in the Xuanhe era)

Books and Articles in Korean

- Choi, Eun Nyoun (최은녕) and Kim, Eun Ah (김은아). 2004. “A Study of Kinds and Characteristics of Patterns: Water-moon Avalokitesvara Bodhisattvas during the Goryeo Dynasty” (고려시대 수월관음도에 나타난 문양의 종류와 특성에 관한 연구). *Conference of the Society of Korean Traditional Costume* (한복문화학회 학술대회): 49–65. Seoul: The Society of Korean Traditional Costume (한복문화학회).
- Jang, Kyung Hee (장경희). 1994. “An Examination of the White Clothes in Goryeo Water-moon Avalokitesvara” (高麗 水月觀音圖의白衣에 대한 考察). *Misulsa yeongu* (미술사연구) 8: 33–62.
- Jung, Gwang (정광), translated. 2010. *Original Imprint of the Nogeoldae* ((譯註) 原本老乞大). Seoul: Bakmunsa (박문사).
- Jung, Hyun-ju (정현주). 1990. “A Study on Veil Pattern in *Suwol gwaneum do* of the Goryeo Dynasty” (고려시대 수월관음도의 베일에 나타난 문양 연구). Master’s thesis, Kyung Sung University.
- Kikutake, Junichi (菊竹淳一) and Jeong, Wootack (정우택), ed. 1996. *Buddhist Paintings of the Goryeo Dynasty* (高麗時代の佛畵). Seoul: Sigongsa (시공사).
- Koh, Seung Hee (고승희). 2000. “A Study on the Motifs in the Buddha’s Robe in Buddhist Paintings of the Goryeo Dynasty I” (高麗佛畵의佛衣紋樣研究(上)). *The Art History Journal* (강좌 미술사) 15: 151–167.
- . 2004. “A Study on the Motifs in the Buddha’s Robe in Buddhist Paintings of the Goryeo Dynasty II” (高麗佛畵의佛衣紋樣研究(下)). *The Art History Journal* (강좌 미술사): 181–213.
- Lee, Seon-Yong (이선용). 2005. “A Study on Objects and Textiles in Buddhist Statue Enshrinements” (佛腹藏物 구성과 직물에 관한 연구). Master’s thesis, Dongguk University.
- National Museum of Korea (국립중앙박물관). 2010. *Masterpieces of Goryeo Buddhist Painting* (고려불화대전). Seoul: National Museum of Korea (국립중앙박물관).
- Park, Ok Lyun (박옥련). 1992. “A Study on Dress Patterns in *Suwol gwaneum do* of the Goryeo Dynasty” (高麗時代 水月觀音圖의衣裳에 나타난 文樣研究). *Journal of the Korean Society of Clothing and Textiles* (韓國衣類學會誌) 16: 111–122.
- Sim, Yeonok (심연옥). 2002. *5,000 Years of Korean Textiles: An Illustrated History and Technical Survey* (한국직물오천년). Seoul: Institute of Ancient Textile (고대직물연구소).
- . 2006. *2,000 Years of Korean Textile Patterns* (한국직물문양이천년). Seoul: Institute of Ancient Textile (고대직물연구소).
- . 2010. “Patterns on Costumes in Buddhist Painting of the Goryeo Dynasty” (고려불화에 표현된 복식 문양 연구). *Journal of Korean Traditional Costume* (한복문화) 13: 125–143. Seoul: Society of Korean Traditional Costume (한복문화학회).

Books in Japanese

- Kyoto National Museum (京都國立博物館). 2010. *Transmitting Robes, Linking Minds: The World of Buddhist Kasaya* (高僧と袈裟). Kyoto: Kyoto National Museum (京都國立博物館).
- Nakae, Katsumi (中江克己). 2004. *Understanding the History of Japan through the Names of Patterns* (文様の名前で読み解く日本史). Tokyo: Seishun Publishing Co., Ltd. (青春出版社).

A Book in English

- Watt, James C. Y. and Wardwell, Anne E. 1997. *When Silk was Gold: Central Asian and Chinese Textiles*. New York: The Metropolitan Museum of Art.