

## An Innovative Design Study of Rosewood Silver-Inlaid Art

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### Abstract

Rosewood silver-inlaid lacquerware first emerged during the Daoguang period (1821-1850) of the Qing Dynasty and has preserved traditional lacquering techniques with conventional decorative patterns. The rosewood silver-inlaid lacquerware studied in this paper is relatively widespread in the Weifang region. Despite its historical production, recognition remains largely confined to Weifang municipality, with limited dissemination beyond Shandong Province

This study employs the "literature research method" and "field investigation method" to explore the production techniques of rosewood silver-inlaid lacquerware. Through related research, key procedural steps and methods requiring attention during the crafting process were identified. During the investigation, improvements and innovations were made to certain aspects of the silver-inlaid patterns and production techniques, which were then applied in the creation of a series of rosewood silver-inlaid lacquerware artworks.

**Keywords:** Lacquer Art, Rosewood Silver-Inlaid Lacquerware, Decoration, Innovation

## Introduction

Archaeological evidence indicates China has been the earliest civilization to utilize lacquer. As an artistic medium, lacquerware stands as an exemplary manifestation of China's enduring craft traditions. Having been transmitted over millennia, it has become deeply embedded in people's daily lives, enriching both material culture and spiritual nourishment. Weifang has sustained a vibrant handicraft tradition since ancient times, producing diverse art forms including kite-making, Yangjiabu woodblock prints, Puhui New Year paintings, Gaomi paper-cutting, rosewood silver-inlaid lacquerware, and antique bronzeware reproductions. Although China has a wealth of artistic traditions and considerable research on lacquer art, domestic and international studies on rosewood silver-inlaid lacquerware remain relatively scarce. Historical documentation on this craft is particularly lacking, as most artisans tend to focus solely on production rather than recording and systematizing theoretical knowledge. Awareness and engagement with academic research in this field still need improvement. Additionally, insufficient innovation poses another major challenge. Rosewood silver-inlaid lacquerware has yet to fully adapt to contemporary aesthetics and lifestyle demands in terms of themes, designs, and applications, leading to severe product homogenization and difficulty in stimulating new market interest (Wang, 2024). To gain a more comprehensive understanding of the production techniques and methods of rosewood silver-inlaid lacquerware and to promote its dissemination, this study aims to elevate Weifang's rosewood silver-inlaid lacquerware to a broader stage. Therefore, the author has conducted relevant research on the subject.

## Research Objectives

1. To conduct a relatively comprehensive study on the production techniques of rosewood silver-inlaid lacquerware and further innovate its craftsmanship.
2. To integrate the rosewood silver-inlaying technique with traditional lacquer art in lacquerware creation, combining contemporary characteristics with handmade artistry, thereby further highlighting the traditional value and modern significance of rosewood silver-inlaid lacquerware.
3. To preserve the artistic form of rosewood silver-inlaid lacquerware while innovating and refining it in creative practice, thereby better expressing contemporary humanistic spirit and cultural depth, as well as embodying the era-specific features of arts and crafts

## Research Methodology

The research methods involved in this study include literature research and field investigation.

In the field of arts and crafts, literature research is one of the most fundamental and essential research methods. It primarily involves systematically collecting, evaluating, organizing, and analyzing various documentary materials to reconstruct historical contexts, interpret cultural connotations, or validate academic hypotheses. In this study, the researcher mainly consulted academic papers, local reports, and historical records related to lacquer art and decorative techniques to gain an in-depth understanding of the subject and enrich the research content. For instance, Zhang Aihong's article "A Study on the Development and Challenges of Rosewood Silver-Inlaying Craft in Weifang, Shandong" discusses improvements in silver-inlaying techniques, providing valuable references for this research (Zhang, 2014). Field investigation is a research method involving on-site observation, documentation, and participation at craft production locations (workshops, villages, and markets), aiming to collect primary data that supplements literature research. In this study, direct engagement with rosewood silver-inlaid lacquerware artisans facilitated both technical understanding and preservation documentation.

## Research results

### 1. Redwood silver-inlaid lacquerware craft

#### 1.1 Lacquerware production process

The lacquer art process may appear deceptively simple, but its production involves complex procedures including: (1) base preparation, (2) surface scraping, (3) matte finishing, and (4) repeated paint application. The wiping process requires multiple iterations. For smaller items, additional surface mounting is necessary. Each lacquer application must be followed by sanding after drying, with this cycle repeated until the desired finish is achieved.

#### 1.2 Making process of rosewood silver paint ware

As the place where the traditional handicrafts of rosewood silver lacquerware was produced, Weifang had a creative background of time, earth, beauty of materials and craftsmanship in a specific historical period (Hua, 2010)

The next step to be carried out after polishing the carcass is the "silver embedded" process. Stick the drawings drawn in advance on the carcass, and then inlaid materials such as gold and silver wires in the groove where the pattern texture is located. Gold and silver wire should choose the thickness according to the pattern and wood you

choose. The inlaid patterns are mostly landscapes, flowers, figures, birds and beasts, and various fonts. Then the metal wire is embedded and smashed and sanded with sandpaper to be flush with the carcass surface to perform the subsequent process.

### 1.3 Pattern making process of rosewood silver lacquerware

The process begins by adhering the printed pattern to the prepared base surface using adhesive paste. After the paste dries, the line engraving commences. Essential tools for silver inlay include:

- (1). Fine scissors
- (2). Hammer-equipped tweezers
- (3). Specialized silver-inlay chisels (varying in width from 1-2 mm, with thickness matching the silver wire)

The silver-inlay chisels create both curved and straight incisions on wood surfaces. Experienced artisans select chisels based on the pattern's line curvature and length. The technique involves:

- Positioning the chisel along the pattern lines
- Gently tapping the chisel with a hammer while moving it along the design
- Forming precise grooves through controlled percussion

#### **Subsequent steps require:**

- (1). Shaping the silver wire into appropriate arcs using tweezers
- (2). Aligning the wire over the incised groove
- (3). Carefully hammering the wire into the channel
- (4). Trimming to length with scissors
- (5). Final tightening with a precision hammer

## 2. Innovative design of rosewood silver paintware

### 2.1 Pattern innovation of rosewood silver lacquerware

#### 2.1.1 Classification of pattern expression of rosewood silver lacquerware

The researchers in this article searched for relevant information through searching for relevant information and classified and summarized the pattern performance of rosewood silver lacquerware, and prepared Table 1.

**Table 1** Weifang rosewood silver lacquer decoration theme classification table

category	Express content and characteristics	Representative patterns/example	Crafts and cultural significance
Landscape	Expressing natural landscape situations, limited	Landscape painting artistic conception (such as distant mountains, flowing water, etc.)	Simulating the landscape effect through the changes in density, length, and curved straightness of silver threads, it

category	Express content and characteristics	Representative patterns/example	Crafts and cultural significance
	by silver embedded craft materials		is difficult to express the hazy feeling of brush and ink smudge
Characters	Mainly based on women's themes, reflecting beautiful demands and yearnings	Pictures of Eight Immortals Crossing the Sea, Flying Immortals from the Sky, Chang'e Jade Rabbit, Lady	It has practical significance and is mostly used to express idealized images in myths, legends or folk stories
Animals, plants, flowers and birds	Close to the public's aesthetics, strong lifestyle	Peony, pine and crane, plum, orchid, bamboo and chrysanthemum, fish and insects, etc.	The most popular and most numerous categories reflects natural vitality and traditional aesthetic taste
Folk auspicious patterns	Express your best wishes and wishes	Text or symbolic patterns such as blessing, fortune, longevity, joy, wealth, and auspiciousness	Widely used in weddings, birthdays and other occasions, carrying the concept of blessings in traditional culture
Ancient utensils patterns	Drawing on classic patterns from historical relics to highlight cultural heritage	Bronze patterns from Shang and Zhou dynasties, ancient jade tiles on Qin and Han dynasties, etc.	Reflects the inheritance of ancient art, with both collection and academic value

As shown in Figure 1, this plate-viewing ornament features goldfish motif inlays. The disc prominently displays four striking characters reading "Golden and Jade Hall" (金玉满堂). While the overall composition exhibits smooth craftsmanship and dense patterning, the work demonstrates overt commercial characteristics that reveal a lack of artistic autonomy. This tendency has somewhat constrained both the innovative development of traditional handicrafts and cross-disciplinary creative exchange.



Figure 1 "Golden and Jade Hall"(金玉满堂) (Source: Photographed by the author)

### 2.1.2 The combination of calligraphy art and rosewood silver lacquerware

In Chinese culture, chopsticks constitute an indispensable element of daily life. As demonstrated in Figure 2, the design of this rosewood chopstick box integrates traditional cultural elements: the lid features a portrait of Confucius, while the base displays the classical Confucian dictum "Is it not delightful to have friends coming from afar?" (有朋自远方来，不亦乐乎？).

Calligraphy, having been cultivated for millennia as a quintessential Chinese art form, embodies the nation's profound cultural heritage and aesthetic principles. This cultural context renders the integration of calligraphic art with rosewood silver-inlaid lacquerware both conceptually justified and technically imperative for cultural preservation. From the external characteristics, it can be seen that the overall color of the work in Figure 2 is light yellow, which is closer to the color of the wood itself, and is clearer than the dark redness of the previous work. Because natural lacquer is transparent and its color does not cover, if the lacquer is applied on the wooden base, even if the lacquer needs to be painted and polished over and over again during the production process, the patterns of the wooden base itself will still exist. This color works are not only fresher and more beautiful, but also present the properties of the wood itself well in front of everyone, increasing people's understanding and understanding of the wood itself, and it is also easier to distinguish the types of wood bases.



**Figure 2** "Taste of Food" (食之味)(Source: Photographed by the author)

Figure 3 presents the most prevalent decorative motif found in chopstick boxes - a floral-and-butterfly composition symbolizing spring vitality. The design depicts blossoming flowers attracting newly emerged butterflies, visually echoing the poetic imagery from Southern Liang Dynasty poet Liu Lingxian's "Answer": "Orioles warbling amidst foliage, butterflies frolicking among blossoms" (鸣鹂叶中舞，戏蝶花间鸞).

This classical aesthetic representation contrasts technically with the yellow lacquer variant, as the red lacquer requires an additional pigmentation process during production, resulting in distinct chromatic qualities.



Figure 3 "Butterflies Love Flowers"(蝶恋花) (Source: Photographed by the author)

### 2.1.3 Combination of flat composition and rosewood silver-inlaid lacquerware

Figure 4 is a rosewood silver intact inkstone box. It can clearly see that the pattern is composed of carp and water splashes. The size is about 6cm×8cm. The pattern is inlaid with silver wire, and the whole work is dark red. The luster of the lacquer and the brightness of the silver wires are combined to make the whole work look high-end and atmospheric. The composition method of the pattern cleverly combines the composition principle of flat composition and the artistic beauty of decorative painting. The graphic composition does not take practicality as the design concept but is entirely a service for visual expression. Modern composition techniques such as "asymmetric composition", "dynamic balance", "highlighted focus", "geometry and free form" can not only maintain the essence of traditional culture, but also give them new aesthetic value and contemporary significance in the context of modern design (Hu, 2024).



Figure 4 "Fish in the Middle"(鱼中游) (Source: Photographed by the author)

The carp scales are copied and arranged in sequence through lines of the same arc, and the simple shape has its own unique rhythm. It combines different arrangement rules between points, lines and surfaces to form a picture in a picture with formal beauty. The expression of traditional patterns emerges, appears and develops from nature, but it exists higher than nature. It aims to be practical, and traditional patterns often rely on different means to rely on the real environment to achieve their own practical purpose. As a handicraft product, rosewood silver embedded in it has both artistic ornamental value and practical value, which is easy to collect and is deeply loved by the world (Li, 2011)

The inkstone box can be regarded as a cultural item and is one of the essential items for literati and artists. Therefore, the patterns presented on the outside are particularly important. It must not only be beautiful and generous but also have beautiful meanings to be integrated into it. We can see the silver pattern in the picture. The following part is the shape of the splashing water splashes. The water splashes rise from the water surface, and are arranged in a curved manner, with a moderate density, as if you can see the moment when a carp rises into the air. Two carp hang in the air, their heads jumping upwards, giving the feeling of carp leaping on the dragon gate. After continuous evolution, traditional patterns have formed a unique artistic system. They are inexhaustible cultural treasures and an important manifestation of the national spirit. They can provide good support for the development of modern design. (Wang Jing, 2025)

#### 2.1.4 The combination of folk culture and rosewood silver-inlaid lacquerware

Figure 5 depicts a child flying a kite, demonstrating distinct stylistic influences from Yangjiabu woodblock New Year paintings. This representation of post-school recreation embodies characteristic Weifang regional aesthetics while incorporating contemporary elements. The composition deliberately subverts conventional visual proportions to create striking spatial dynamics, transcending temporal and spatial constraints. Through this innovative approach, artisans reinterpret traditional motifs by infusing them with vitality, endowing each work with unique symbolic significance.

The inlaid silver pattern in Figure 5 is the product of the author's combination of folk culture and woodblock New Year pictures with inlaid silver patterns. This rosewood silver-inlaid lacquer is a piece of ornament, also called a watch plate. It consists of a disc with silver-inlaid pattern on the upper part and a carved bracket on the lower part. The whole thing is also dark red.





Figure 5 "Flying a kite" (纸鸢)(Source: Photographed by the author)

#### 2.1.5 The combination of paper-cutting art and rosewood silver-inlaid lacquerware

Figure 6 is a jewelry box with rosewood silver inlay. A beautiful and generous jewelry box can not only help women who love beauty have a beautiful storage place, but also reflect a woman's appreciation level and good taste, embellish a beautiful life, and improve the happiness of life and the interest in life. The pattern on the lid of the jewelry box is composed of plum blossoms and magpies, which has the beautiful meaning of being happy with your eyebrows. This picture is also a relatively common theme in paper cutting. In Weifang, in addition to Yangjiabu woodblock New Year pictures, the most famous one is Gao mi paper-cutting. Figure 6 draws on the expression of silhouettes in paper cutting, summarizes the shapes and adjusts the sparse lines of the plum blossoms and magpies in the picture, and uses a single-line outline to inlaid the paper cutting patterns originally displayed on the surface on the rosewood silver lacquerware in the form of lines to achieve the transformation of the carrier.



Figure 6 "Joy"(喜)(Source: Photographed by the author)

Artwork design is a key link in determining the appearance of rosewood silver lacquerware, mainly including styling design and pattern design, that is, the design of the overall shape presented by the utensil and the design of the decorative theme image of the instrument (Ji, 2014).

## 2.2 Color innovation of rosewood silver-inlaid lacquerware

### 2.2.1 Application of color innovation to lacquer surfaces

Modern rosewood silver lacquerware is different from traditional rosewood silver lacquerware in color. The jewelry box shown in Figure 6 is dark red in color, and this color is performed after the silver embedding process is completed. First fill the pot with water, pour in the pigment powder and boil the water. After the burned pigment is cooled, put the wooden tire into the dye water to ensure that the dye completely immerse the wooden tire, and then take out the wooden tire and dry it, and then continue to be covered with ash. Mix the raw paint and blue tiles ash together in a certain proportion. After the two are completely mixed, apply the paint ash evenly on the surface of the carcass with cotton yarn or other tools. This step is to fill the original wood holes and other defects of the wooden body. After applying the paint ash, move the wooden tire into the yin room and dry for several days. After the paint ash is completely dry, take out the wooden tire and dip it in water and grind it. This step takes several times to complete until the surface is smooth and shiny and textured. The last step in painting is to apply paint, that is, apply raw paint directly to the surface of the lacquerware without borrowing any tools. Dip your index finger into raw lacquer and apply a complete lacquerware at one time in the same direction. This step depends entirely on the temperature and proficiency of the fingertips, and put it in the vaginal chamber and wait for the vagina to dry. This step does not require grinding, and the paint step is completed after the paint is completely dry.

The color of rosewood silver lacquerware is not as rich as that of ordinary lacquer art. It is mostly red of different shades, and the effect is better when compared with white silver wire. In this study, the authors adopted a color different from the previous red, as shown in Figure 2. This chopstick box is light yellow, which we can call this color "original color", which is the original color of the wood.

### 2.2.2 Application of color innovation in patterns

As shown in Figure 7, it is a rosewood silver-embedded ornament called "Shenjin-Chi Ai".(沉金·赤蔼) The difference between the ornaments in Figure 7 and the past is the place where the goldfish is displayed in the picture. The first thing we see is the difference in color. The goldfish's body lines are golden, but they are obviously different from the gold wire. Gold wires are often thinner and lack color and brightness.

Even over time, metal oxidation will occur, losing the luster of the metal and becoming dull. The gold line in the picture uses the Japanese Masato method, the golden effect is more obvious and brighter, and it is more convenient to draw by hand. Pattern drawing is the essence of the painting technique, and pattern drawing must be left at the end of the entire lacquer art process. In the process of making this "Shenjin·Chi Ai"(沉金·赤蔼) ornament, first of all, the blank space on the goldfish's body should be left when inlaid with the pattern, and the other inlays should be carried out as usual. After the pattern is made, the grinding process will be carried out several times. When the surface of the lacquerware becomes smooth and shiny, everything is ready, take out the tools needed by Maimei. This step of drawing requires a good hand-drawing skills. Take out the prepared line pen and dip it in raw lacquer. After drawing it according to the goldfish pattern that was intended in advance, dip the dry brush into gold powder and sprinkle evenly on the drawn goldfish lines, and then put it away and dry it. After the paint is dry, take out the check plate, dip the cotton in alcohol and wipe off the excess gold powder, then apply the last time the raw paint is dried and then dry. After the paint is dry, you can complete all the processes. This piece of silver-intact and Masae-eyed look ornament was made. This work not only changed the color of the inlay pattern, making the whole picture less monotonous, but also adjusted the production process, making the work more innovative.



Figure 7 " Shenjin· Chi Ai "(沉金·赤蔼) (Source: Photographed by the author)

### 2.3 Technological innovation of rosewood silver-inlaid lacquerware

#### 2.3.1 Application of laser engraving process

In the production process of silver-embedded patterns, the previous production process was all hand-made. However, with the development of industrial production in

recent years, some machines that can replace hand-craft production have been produced, and the production efficiency brought by machine production to the factory can be imagined. The traditional rosewood silver-embedding process is quite cumbersome, labor-intensive, and technical requirements are very high. The emergence of laser engraving technology greatly improves the accuracy of handicraft patterns, and the original uneven line thickness no longer exists, and the waste rate also decreases. Computer drawing technology is crucial in laser engraving technology. First draw the pattern you have conceived on paper.

In the format of the picture, use the CorelDRAW software, use the pen tool to trace it one by one according to the route in the picture, save it as a path, and save the format as plt format. Different engraving machines have different requirements for the format. By selecting the working modes of different laser engraving machines, that is, the values set are different, so the engraved lines will have different thicknesses. This requires choosing the thickness according to your own pattern or silver-inlaid wire. The effects of silver wires of different thicknesses are also different.

### 2.3.2 Improvement of lacquer process

As mentioned earlier in the article, the production process of the paint process is complex and the process of drying in the shade is time-consuming. To achieve the desired effect, it requires paint and polishing over and over again, so that this work can be smooth and shiny. Due to the manual and artistic characteristics of this craft, there is currently a lack of unified industry standards, and it is difficult to strictly stipulate that a certain standard must be met (Hu, 2015). During the painting process, add a certain proportion of drying agent according to the size of your work and the amount of paint required. Mix the lacquer and drying agent evenly together, then apply it to the surface of the utensil, and then enter the shade room and dry it. The use of drying agent reacts with the lacquer to accelerate the drying of the paint film, thereby greatly shortening the production cycle of the lacquerware and increasing the production number of lacquerware.

Following the completion of all preceding lacquer application stages, a precisely measured curing agent is uniformly distributed across the lacquer surface using either cotton gauze or specialized lacquering brushes. Upon full polymerization, this process yields a protective stratum exhibiting markedly enhanced surface smoothness and optical clarity compared to the underlying lacquer matrix. The incorporation of this curing agent confers threefold technical benefits: it substantially diminishes manual polishing

labor while augmenting surface radiance, concurrently increasing film thickness to effectively occlude the wooden substrate's surface porosity, thereby inducing measurable hardening of the composite material system.

## Discussion

By referring to some relevant literature and understanding and research on lacquer art techniques and production techniques, the writing of this article and the creation of related works were completed under the premise of literature support and mastery of techniques. This study first made an innovation in material combination, inlaid and combining metals of different materials. Traditional Weifang rosewood silver lacquerware mainly uses sterling silver wire inlay, while this study attempts to combine different metals (such as silver, copper, alloy, etc.) to enhance the visual layering and artistic expression of the work. Improve artistic effect: The contrast of colors and textures of different metals (such as the cold white light of silver and the warm yellow tones of copper) can enrich the picture expression, especially suitable for landscapes, ancient artifacts and other subjects, enhancing the three-dimensionality and decorativeness.

Process adaptability: The impact of the ductility and hardness differences of different metals on the inlay process should be considered. For example, if the copper wire is hard, the depth and width of the inlay grooves need to be adjusted to ensure the fit.

The extension of cultural connotations is achieved through metal combinations that symbolize traditional auspicious motifs, notably "golden and jade hall" (金玉满堂) and "harmonious prosperity" (富贵和谐). These combinations not only satisfy the aesthetic requirements of folk art traditions but also incorporate contemporary design elements into conventional craftsmanship. The transformation of Weifang's rosewood silver lacquer techniques into cultural-creative industrial products has become an essential adaptation to contemporary market demands and heritage preservation needs (Wang, 2022).

Secondly, a technical improvement was made in the early production steps, that is, the combination with the laser engraving machine, which also improved work efficiency to a certain extent, saved creative time, and bought time for other later processes. Traditional silver embedding requires hand-carved pattern grooves. This study introduces laser engraving technology for early pattern engraving, which significantly optimizes the production process:

Improve efficiency: Laser engraving can accurately and quickly complete the engraving of complex patterns (such as bronze back patterns and fine flower and bird

lines), reducing manual errors and shortening construction periods. Accuracy guarantee: It is especially suitable for symmetrical patterns (such as tile pattern, Fushou characters, etc.), ensuring the regularity of the pattern and providing a better foundation for subsequent silver wire inlays. Through material combination and technological improvement, this study expanded the expressiveness and production efficiency of Weifang rosewood silver lacquerware, which not only continued the cultural connotation of traditional patterns, but also provided a feasible path for the contemporary development of craftsmanship. In the future, more interdisciplinary technologies (such as 3D modeling assisted design) can be combined with further promote the inheritance and innovation of this intangible cultural heritage technology. The rich cultural connotation of Weifang's silver-embedded lacquer technology and the humanistic characteristics of the materials determine that its innovation is to explore ways of expression in line with the blessing of modern design under the premise of a perfect combination of beauty and art (Yu, 2022)

### Recommendations

Rosewood silver-intrinsic lacquerware is a unique lacquer craft in Weifang area. It has a small circulation area, and the academic community has also conducted relatively little research on the rosewood silver intrinsic lacquerware. Most researchers are still studying lacquer art and lacquerware works, and there is still a lack of research on rosewood silver-embedded lacquerware products. For this issue, relevant units and intangible cultural heritage research and protection organizations should actively cooperate with local rosewood silver lacquerware enthusiasts and related studios to promote and protect the dissemination and development of rosewood silver lacquerware through publicity work. At the same time, in the next development of rosewood silver lacquerware, the main research content should be based on the production process and production process of rosewood silver lacquerware, and some works themes and technology updates should be changed while ensuring the final effect of their original crafts and crafts.

### References

Hu, H. (2024). Research on the innovative application of decorative patterns in rosewood silver-inlaid lacquerware in Weifang. *China Raw Paint*, 43(2), 23–26. <https://doi.org/10.19334/j.cnki.issn.1000-7067.2024.02.006>

- Hu, Q. (2015). Research on the development status and strategies of rosewood silver lacquerware in Weifang. *Decoration*, (7), 90–91. <https://doi.org/10.16272/j.cnki.cn11-1392/j.2015.07.027>
- Ji, Y. (2014). Analysis of the performance and connotation of the craftsmanship of rosewood silver paintware in Weifang. *Decoration*, (3), 73–74. <https://doi.org/10.16272/j.cnki.cn11-1392/j.2014.03.038>
- Wang, J. (2025). The value of graphic design based on traditional patterns and practical application. *Footwear Technology and Design*, 5(6), 27–29.
- Wang, S. (2024). Research on the revitalization and innovative development strategies of the rosewood silver paintware industry in Weifang. *Forest Fire Protection*, 42(3), 127–130.
- Yu, Y. (2022). Research on innovative design of Weifang silver-embedded lacquer technology. *Chinese Raw Paint*, 41(2), 45–48. <https://doi.org/10.19334/j.cnki.issn.1000-7067.2022.02.008>
- Zhang, A. (2014). Research on the development situation of rosewood silver-embedded craftsmanship in Weifang, Shandong. *Art and Design (Theory)*, (5), 150–152. <https://doi.org/10.16824/j.cnki.issn10082832.2014.05.042>