

A Study on the Innovative Design of Wuchuan Piaose Elements in Leather-Carving Craft

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Abstract: Leather carving is a traditional handicraft that combines artistic and practical value. It can be executed entirely by hand through carving, hammering, pressing, and modelling, or produced in batches with mechanical moulds. This study traces the historical origins of leather carving, examines its development and stylistic characteristics in China and abroad, and discusses its methods of application and dimensions of value in handcrafted leather goods. On this basis, the study introduces the folk-cultural resources of Wuchuan Piaose, a national intangible cultural heritage practice, and investigates how its visual elements and cultural meanings can be creatively translated into leather accessories. It further explores an industrial development model that integrates cultural and creative products with intangible-cultural-heritage experiences, providing practical references for the localized innovation of traditional leather carving and the living transmission of folk intangible cultural heritage.

1. Introduction

Leather carving, also known as leather-carving craft, originated in fourteenth-century Europe. Because leather-carved objects were complex to produce, made from costly materials, and distinguished by refined carving and an elegant antique appearance, they were highly favoured by royalty and the aristocracy and once served as symbols of status and prestige. For a long period in Europe, the craft was transmitted privately, served royal and aristocratic patrons, and was neither openly taught nor widely marketed. With European expansion into the Americas and the development of the slave trade, leather carving reached the American continent. By the twentieth century, it had developed the new Sheridan style, which became popular among western cowboys and helped the craft spread throughout the Americas. After Japan's defeat in the Second World War, American servicemen introduced leather carving to Japan, from where it entered Chinese mainland only in recent decades. It then began to merge with regional cultures across China. Among these localized developments, Mongolian leather carving has been particularly successful: in 2016, Mongolian leather-carved painting was listed as an intangible cultural heritage item of the Inner Mongolia Autonomous Region.

In recent years, as the revitalization of intangible cultural heritage and the cultural and creative

industries has advanced in China, the integration of leather carving with local folk culture has gradually become an important direction for innovation. Incorporating local intangible-cultural-heritage elements into leather-carving design can both enrich its localized artistic language and provide a contemporary vehicle for folk culture. As a nationally recognized folk intangible cultural heritage practice representative of western Guangdong, Wuchuan Piaose offers distinctive sculptural artistry and rich folk meanings, providing high-quality cultural resources and new design approaches for the localization and innovation of leather carving.

2. Artistic Characteristics and Cultural Connotations of Wuchuan Piaose

2.1. Folk Attributes

Wuchuan Piaose is a central component of the annual folk festivals of western Guangdong. It exists within folk settings such as sacrificial rites, deity processions, and prayers for blessings, carrying local people's aspirations to ward off misfortune, invite good fortune, and secure favourable weather [1]. Performances are organized by clans and villages and combine ritual significance with broad community participation. Wuchuan Piaose is therefore a concentrated expression of clan and community culture in western Guangdong and a distinctive cultural marker of the Leizhou Peninsula folk-culture region [2].

2.2. Visual and Artistic Characteristics

In terms of form, Wuchuan Piaose centres on young performers locally known as "sezai" and "sen ü" and employs a three-dimensional mode of human representation. Its figures are generally drawn from traditional opera, mythology, and historical narratives. To ensure visibility from a distance during processions, the figures commonly use exaggerated bodily proportions, emphasize the head and hands, and feature recognizable operatic makeup and costumes. These choices create forms that are structurally secure, visually buoyant, and clearly legible [3].

In its use of colour, Wuchuan Piaose follows the chromatic logic and palette of traditional opera facial makeup. Red, black, gold, green, and white are the principal colours, and colour is used to distinguish a character's moral qualities and social status, giving the palette a clear symbolic function [4]. The overall scheme relies on highly saturated auspicious colours that suit the festive atmosphere of annual celebrations and popular aesthetic preferences, producing strong visual impact and a vivid folk appeal [3].

In its patterns, Piaose costume design makes extensive use of auspicious motifs such as clouds, waves, scrolling foliage, and flowers, supplemented by status-related motifs such as dragons and phoenixes. Their arrangement follows the conventions of operatic costume and serves both decorative and narrative purposes [2]. The overall composition is scenographic: a single Piaose tableau often presents a complete operatic episode in which figures, props, and the supporting platform form a richly layered visual whole.

2.3. Cultural Core

The cultural core of Wuchuan Piaose is rooted in the folk-belief system of western Guangdong and embodies the popular desire to invite blessings and good fortune while warding off evil and disaster [2]. Its organization and performance depend on village and clan networks, through which it reinforces clan identity and social cohesion [1]. Its aesthetic expression arises from collective creation in everyday folk society, reflecting the unpretentious tastes and shared cultural memory of the people of the Leizhou Peninsula. It is thus a living vehicle of local culture in western

Guangdong.

3. Characteristics of Leather-Carving Craft

3.1. Stylistic Characteristics of Hand-Carved Leather Patterns

Leather carving originated in European royal courts and later reached the Americas through colonial expansion, where it adapted to western cowboy culture and gradually became accessible to ordinary people; after the Second World War, it entered East Asia through Japan. Overseas leather-carving patterns are generally grouped into four styles. First, the Sheridan style of Wyoming uses plant roots, leaves, and flowers as its principal subjects; its lines follow Archimedean curves, and it often employs fully filled circular compositions, making it the most widely transmitted foundational style. Second, the California Stohlman style evolved from the Sheridan tradition. It is distinguished by the deliberate use of negative space and extends its subjects to a variety of plants and animals; its aesthetic logic resembles Chinese line drawing. Third, the Arizona and California styles likewise focus on botanical and floral subjects but are less widely practised. Fourth, the Japanese style developed from European and American leather carving, incorporated the aesthetics of ukiyo-e, and adopted a concise and refined character. It advanced leather carving from planar expression towards three-dimensional modelling and is also one of the styles most familiar in China. Within China, Mongolian leather carving is especially representative. As a local intangible cultural heritage practice, it commonly depicts nomadic life and combines the expansive spirit of the grasslands with a distinctive ethnic character. Traditional Chinese auspicious motifs—including dragons, phoenixes, taotie masks, clouds, and ruyi forms—are also widely used to convey traditional aesthetic sensibilities through carved lines.

3.2. Production Techniques of Leather Carving

3.2.1. Carving Methods

The production of hand-carved leather resembles traditional Chinese metal chasing, although the materials differ: leather carving uses vegetable-tanned leather, whereas chasing is performed on metal. The process begins with unfinished, natural-coloured vegetable-tanned leather and uses specialized tools to press, hammer, carve, and fill the surface until a refined design is formed. Broadly speaking, leather-carving methods can be divided into traditional karakusa scrollwork (flat relief) and raised embossing (three-dimensional relief). The basic steps of karakusa carving are tracing, swivel-knife cutting, stamping, and decorative cutting [5]. Raised embossing involves tracing, modelling the raised form, filling it with leather dust, refining the details, and applying colour.

3.2.2. Colour Application

Colouring is an important expressive method in leather carving. It gives the work renewed vitality and enhances its three-dimensional effect. Whether and how colour is applied depends on the maker's aesthetic intention and the desired result: some works retain the leather's original colour and grain, whereas others adopt a strong chromatic style. Because vegetable-tanned leather is highly absorbent, common colouring materials include alcohol dyes, basic dyes, oil-based antiques, and acrylic paint, each producing a different effect and requiring a different technique. Basic dyes are water-based and are diluted with alcohol before use. Their wash-and-layer method resembles Chinese gongbi painting; repeated applications over an extended period produce delicate, bright tones. Before colouring, neatsfoot oil may be rubbed into the leather to replenish its oils, improve

colour uptake, and create richer, more saturated tones with fewer dye layers. Basic dyes are absorbed at the leather's surface and therefore preserve its grain to the greatest extent. Acrylic is an opaque, paste-like colourant that sits on the surface and can obscure the grain. It is mainly used for white areas, highlights, and fine details such as animal whiskers; it can also cover accidental stains produced during carving. Oil-based antique paste is used in recessed areas and backgrounds. After the surface is wiped clean, pigment remains in the depressions, strengthening shadows, emphasizing depth, and creating the illusion of relief. It is particularly suitable when much of the natural leather colour is to be retained.

4. Application Value of Wuchuan Piaose Elements in Leather Accessories

4.1. Practical Value

Wuchuan Piaose elements can be incorporated into products as decorative forms and rendered through planar processes such as relief carving and incised lines. This approach does not alter the accessory's basic form or mode of use and does not compromise functions such as storage or wearing, thereby balancing cultural decoration with practicality. Leather accessories featuring Wuchuan Piaose can establish a distinctive market position, fill the gap in leather creative products based on the intangible cultural heritage of western Guangdong, and stand apart from homogeneous generic leather goods. Their folk-cultural content also increases cultural added value and allows the products to serve multiple markets, including tourist souvenirs, everyday accessories, and cultural gifts, thereby broadening their commercial and profit potential [8].

4.2. Artistic Value

Leather carving is not only a practical craft but also an artistic form of hand carving. Its creation reflects the maker's artistic conception and understanding of life. Materials for hand-carved leather are carefully selected, and the work is carved entirely by hand. The lengthy and complex production process yields finely articulated raised and recessed patterns with substantial aesthetic and artistic value. Leather carving is therefore more than ornament on a leather bag; it can also create visual pleasure and allow viewers to experience the distinct tactile and visual effects produced by different leathers and pattern styles [6].

4.3. Craft Value

The natural grain and visible tool marks of hand-carved leather, combined with the visual dynamism of Wuchuan Piaose folk art, create a distinctive aesthetic language. Their integration moves beyond the traditional reliance of leather carving on Western motifs by introducing Eastern folk aesthetics and a regional cultural character. The result is a localized style that combines the warmth of handwork with cultural depth and offers a new visual path for the local expression of leather-carving art.

4.4. Cultural Value

The incorporation of Wuchuan Piaose elements gives ordinary leather accessories a recognizable cultural identity rooted in western Guangdong and turns them into portable, communicable regional symbols. Using everyday accessories as carriers breaks the limitation whereby Wuchuan Piaose is encountered only during annual folk festivals, bringing folk culture into daily life and expanding both its settings of communication and its audiences. This approach also puts the principle of the

"productive protection" of intangible cultural heritage into practice: market consumption supports cultural communication, while industrial vitality in turn sustains the living transmission of traditional folk practices [7].

4.5. Value for Intangible-Cultural-Heritage Creative Products and Industry

The combination of leather carving with local intangible cultural heritage further creates industrial value for heritage-based cultural and creative products. In leather accessories incorporating Wuchuan Piaose, for example, value is no longer confined to practical and aesthetic qualities but extends to intangible-cultural-heritage IP development, culture-tourism integration, and the experience economy, forming an industrial pathway of "cultural and creative products plus intangible-cultural-heritage experiences" [8].

On the one hand, the Piaose IP gives leather products differentiated market competitiveness. It can support multiple product lines—including tourist souvenirs, cultural gifts, and everyday accessories—and accommodate sales through scenic areas, cultural and creative shops, and online commerce, thereby increasing cultural added value and market reach. On the other hand, the leather-carving craft can support Piaose-themed heritage experiences, including workshops, study programmes, and hands-on activities. Consumers learn about Wuchuan Piaose folk culture while making an object themselves, creating a model in which experiences attract participants and lead to product conversion. This industrial pathway both implements the principle of "productive protection" [8] and opens a new avenue for growth in the traditional leather-carving sector.

5. Application of Piaose-Inspired Leather-Carving Art in Handcrafted Leather Goods

5.1. Relationship between Leather-Carving Craft and Leather Goods

5.1.1. Leather as the Material Carrier of Leather-Carving Art

Leather carving is a specialized art form whose material carrier is inseparable from leather. Only on a leather surface can the craft fully express its particular artistic and practical values. Indeed, leather carving originated as a means of decorating leather objects, which therefore function as its essential carrier. Leather products bring the craft into public view and enable its artistic value to be perceived [9]. Handcrafted leather goods are one form of leather product and can thus be regarded as an effective carrier of leather-carving art.

5.1.2. Leather Carving as the Spiritual and Cultural Expression of Handcrafted Leather Goods

Handcrafted leather goods provide an effective carrier for leather carving, while leather-carving art gives those goods spiritual and cultural expression. A handcrafted leather product requires a formal means through which to express and communicate its cultural meaning, and leather-carving art provides precisely such a means. In carving and modelling a pattern, the maker incorporates personal ideas and cultural understanding into the work, allowing them to be communicated through its form. Leather-carving art consequently functions as the expressive consciousness of handcrafted leather goods and enables their cultural meanings to be conveyed [9].

5.1.3. Artistic Compatibility between Wuchuan Piaose and Leather-Carving Craft

The visual language of Wuchuan Piaose is highly compatible with traditional leather carving in artistic logic, methods of expression, and value attributes, providing an inherent basis for their

integration in design.

In formal expression, both centre on three-dimensional modelling and emphasize layered relationships and clear contours. Wuchuan Piaose presents human figures as three-dimensional dolls and stresses clarity of silhouette and sculptural volume [3]. Leather carving creates spatial depth on a flat leather surface through relief and embossing. The two therefore share a closely related modelling logic, and the sculptural forms of Piaose can be translated by means of leather relief.

At the level of production, the principal techniques of leather carving can fully convey the visual characteristics of Piaose. Relief can reproduce the volume of its figures; incised lines can describe facial makeup and costume patterns; and colouring processes such as gradient dyeing, wiping, and antiquing on vegetable-tanned leather can adapt to its colour system and material expression. There is thus no insurmountable technical barrier to the translation.

In terms of value, both practices possess clear handmade, cultural, and creative-industry attributes that align closely with the positioning of today's cultural and creative market. The distinctive material character of hand production and the emotional value created by cultural meaning are shared sources of competitiveness; their integration can produce even stronger differentiation [8].

5.2. Innovative Design Practice for Leather Accessories Incorporating Wuchuan Piaose Elements

Following the logic of element extraction and translation, and taking account of the technical characteristics of leather carving and market demand, categorized design practices can be developed for different product positions in order to identify feasible design pathways.

5.2.1. Design Positioning and Principles

The target users fall mainly into three groups: enthusiasts of folk culture, who value cultural meaning and collectability; tourists, who seek cultural products with regional commemorative significance; and users of everyday accessories, who prefer individualized objects combining aesthetic appeal with utility. The design follows three principles. First, cultural meaning and practical use should be unified so that the folk-cultural core is retained without compromising everyday function. Second, tradition and contemporaneity should be balanced so that traditional artistic features are inherited while contemporary aesthetic needs are met. Third, craftsmanship and aesthetics should be considered together so that the rules of leather carving are respected while the best visual effect is pursued [8].

5.2.2. Category-Based Design Practice

(1) Portrait Series

Classic operatic characters represented in Wuchuan Piaose, such as Mu Guiying and Sun Wukong, can be selected [4]. Their most recognizable facial makeup and headdress features are extracted, while details of the body and costume are simplified. Suitable product forms include brooches, key rings, and small pendants, all compact and easy to carry. Shallow relief with localized colouring can highlight facial identity and communicate the spirit of each character through simplified modelling, creating lightweight folk-culture accessories.

(2) Auspicious-Pattern Series

Classic auspicious motifs from Piaose costumes—including clouds, scrolling foliage, and flowers—can be extracted [3] and recomposed as continuous decorative patterns. These designs can be applied to everyday leather goods such as wallets, card holders, watch straps, and notebook covers. Repeated stamping combined with openwork at the edges produces a concise, orderly

arrangement that is decorative without compromising function, enabling traditional culture to be integrated deeply into daily objects.

(3) Folk-Scene Series

The scenic character of Piaose processions and the atmosphere of annual festivals can be distilled [1] by combining figures, ceremonial formations, props, and other visual elements into narrative compositions. Appropriate product forms include large hanging ornaments, tabletop displays, and bag accessories, with an emphasis on decoration and commemoration. Multiple layers of relief and overlaid colours can restore spatial depth and evoke the festive mood, creating folk-cultural products with collectible value.

5.2.3. Process Optimization and Implementation Considerations

First, dimensions must be adapted. The complexity of an element should be adjusted dynamically to suit the size of each accessory: small pieces should condense a motif to its most recognizable features, whereas medium and large products can include more detail and expressive richness. Second, production should be simplified. The complexity of the original Piaose forms must be balanced against the practical requirements of hand leather carving. Redundant lines and layers should be reduced while essential identifying features are retained, balancing artistic effect and production efficiency for both small-batch manufacture and hand customization. Third, materials should be coordinated. Cotton or linen thread, metal fittings, leather cords, and other supplementary materials can enrich material layering and structural detail, improve finish and refinement, and reinforce both the handmade quality and folk character.

5.3. Innovative Design and Industrial Practice for Wuchuan Piaose Leather Accessories

Incorporating Wuchuan Piaose elements into leather accessories is an important practice in the localization and innovation of leather carving and a representative vehicle for exploring an industrial model of "cultural creativity plus intangible-cultural-heritage experience." Its application proceeds along the two dimensions of product development and scenario extension [8].

5.3.1. Development of a Piaose-Themed Leather Creative-Product System

The cultural resources of Wuchuan Piaose can support a tiered and categorized matrix of leather cultural and creative products for different consumption settings and user groups. First, small portrait accessories can draw on classic operatic characters such as Mu Guiying and Sun Wukong [4], extracting facial makeup and headdress features for brooches, key rings, and pendants. Shallow relief and localized colouring provide portability and recognizability for tourist souvenirs and everyday wear. Second, everyday leather goods based on auspicious patterns can apply clouds, scrolling foliage, flowers, and other motifs from Piaose costumes [3] to wallets, card holders, notebook covers, and watch straps. Stamping and openwork integrate folk meanings into useful objects for the mass market. Third, collectible folk-scene displays can combine Piaose procession scenes and annual-festival imagery [1] in large leather-carved wall hangings and tabletop objects. Multilayer relief and overlaid colouring restore spatial depth and position these works for the cultural-collectibles and gift markets.

5.3.2. Industrial Extension through "Cultural Creativity plus Intangible-Cultural-Heritage Experience"

With Piaose leather-carved products at its core, the model can be extended into heritage-experience settings to create a complete loop of products and experiences. Leather-craft workshops

can offer Wuchuan Piaose-themed courses for tourists, families with children, and study-tour groups. Participants learn the craft's basic techniques while also encountering the history and folk meanings of Wuchuan Piaose [2]. During Wuchuan's annual festivals and at cultural tourism sites, immersive heritage activities can combine Piaose performance with hands-on leather carving, mutually reinforcing cultural communication and consumer conversion.

Cross-sector collaboration, online communication, and IP licensing can further expand industrial boundaries, guiding Wuchuan Piaose leather carving from individual products towards industrialization and brand development. This approach offers a replicable practical pathway for the productive protection of intangible cultural heritage in western Guangdong [7].

6. Design Reflections and Future Development

6.1. Current Limitations

The present design practice offers preliminary confirmation that Wuchuan Piaose elements can be integrated with leather accessories, but limitations remain. In element extraction, the work currently focuses primarily on transforming visual symbols and does not yet investigate the folk stories, oral traditions, and other cultural meanings behind Piaose in sufficient depth; the layering of cultural expression therefore requires further development. In product categories, the current designs concentrate on small accessories and everyday leather goods. Their settings of application could be expanded towards larger dimensions, including home furnishings, public art, and spatial decoration.

6.2. Future Directions

First, digital technologies can provide new capabilities. Digital modelling, laser engraving, and related methods can improve the precision and efficiency of leather-carving design, lower the production threshold for complex forms, and support the development of digital cultural products that broaden the digital communication of Wuchuan Piaose. Second, cross-sector collaboration can be deepened. Close partnerships with Wuchuan Piaose heritage bearers, local cultural and creative brands, and cultural-tourism sites can ensure cultural accuracy at the source, support jointly developed product series, and build a complete value chain integrating intangible heritage, craft, and tourism [8]. Third, communication models can be renewed. Wuchuan's annual-festival settings can support an integrated model of "heritage experience plus cultural and creative products," allowing consumers to purchase products while experiencing Piaose culture. This model can reinforce both cultural communication and market conversion and open a new pathway for the living transmission of intangible cultural heritage [7].

7. Conclusion

As a representative form of regional folk culture in western Guangdong, Wuchuan Piaose contains abundant visual-art resources and rich folk-cultural meanings and provides a strong local cultural core for the innovative development of traditional leather accessories. Systematic extraction and technical translation can transform its forms, colours, patterns, and cultural imagery into a leather-carving design language, enabling the development of product series that combine practical function, aesthetic appeal, market value, and cultural significance. In the future, the introduction of digital technologies and deeper integration with cultural tourism will diversify the industrial forms created by this synthesis and provide broader scope for the creative transformation and innovative development of Lingnan folk intangible cultural heritage [7].

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References

- [1] Chen, B.M. (2010) *An Overview of Zhanjiang Folk Culture*. Beijing: Tsinghua University Press, pp. 247–253. (In Chinese)
- [2] Li, J. (2010) *A Folklore Study of Wuchuan Piaose in Guangdong*. Thesis, Sun Yat-sen University, Guangzhou. (In Chinese)
- [3] Liang, Z. (2018) *Artistic Characteristics and Contemporary Inheritance Pathways of Wuchuan Piaose*. *Popular Literature and Art*, 18, 235–236. (In Chinese)
- [4] Deng, B.Q. (2009) *Intangible Cultural Heritage of Zhanjiang*. Guangzhou: Guangdong People's Publishing House, pp. 112–118. (In Chinese)
- [5] Qin, J.X. (2020) *Research on the Design of "Leather-Carved" Decorative Pictures in Leather Bags*. Thesis, Beijing Institute of Fashion Technology, Beijing. (In Chinese)
- [6] Ma, X. (2019) *Research on the Form and Dyeing of Handcrafted Leather-Carving Art*. Thesis, Shanghai Normal University, Shanghai. (In Chinese)
- [7] Lü, P.T. (2009) *Protecting and Developing through Production: On the "Productive-Mode Protection" of Traditional Handicrafts*. *Art Observation*, 7, 5–7. (In Chinese)
- [8] Tan, Y.D. (2020) *A Study on the Design and Development of Zhanjiang Nuo Cultural and Creative Products under the "Productive" Protection of Intangible Cultural Heritage*. *Grand View*, 12, 89–91. (In Chinese)
- [9] Gong, Z.G. (2018) *An Analysis of Distinctive Design for Wildlife-Themed Cultural and Creative Leather-Carving Products*. Thesis, Shandong University of Arts, Jinan. (In Chinese)