

On the Construction of the Technical System of Chinese Folded Paper-cut

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Abstract

At present, the theoretical research on Chinese folded paper-cut lags behind practice relatively. Researchers need to conduct in-depth research on the conceptual connotation and technical system structure of folded paper-cut. The techniques of folded paper-cut can be divided into three levels: basic folding and cutting methods, derived folding and cutting methods, and comprehensive folding and cutting methods, including five categories and sixteen specific folding and cutting methods, each with a variety of folding and cutting forms. The techniques at the three levels increase in difficulty from low to high and are interconnected with each other, thus forming a complete technical system of folded paper-cut.

Keywords

Folded paper-cut; technical system.

1. Introduction

Folded paper-cut, as a fundamental and pivotal category of traditional Chinese paper-cut art, constitutes the core foundation for the inheritance and development of the entire traditional Chinese paper-cut craft. It not only carries the ancient folk aesthetic concepts and cultural connotations of China, but also embodies the most primitive and classic crafting logic of paper-cut art, laying a crucial technical and creative groundwork for the evolution and diversification of subsequent paper-cut forms. Nevertheless, in the current domestic and international academic research field dedicated to traditional Chinese folk art and paper-cut studies, specialized, in-depth and systematic research achievements focusing on the crafting techniques of folded paper-cut are extremely scarce. Most of the discussions related to folded paper-cut techniques are merely scattered in a variety of popular science books, technical tutorials and general monographs on paper-cut creation, without forming independent and dedicated research chapters or systematic theoretical analysis systems. On the whole, the relevant technical content is in a state of sporadic distribution, fragmentary recording and overly simplistic introduction, lacking in-depth theoretical sorting, standardized technical classification and comprehensive academic interpretation, which to a certain extent restricts the in-depth inheritance and academic research of folded paper-cut as a traditional folk craft. The complete technical system of Chinese folded paper-cut that this paper focuses on constructing and systematically expounding, is the valuable research achievement formed after the author's long-term theoretical research, field investigation of folk inheritance and practical creation exploration. Specifically, it is based on the author's years of persistent academic exploration and practical innovation, through comprehensive collection, rigorous sorting, scientific classification and in-depth integration of two major parts of technical resources: one is the traditional folded paper-cut techniques that are widely spread among folk artists and have been collected, sorted out and verified through on-the-spot visits and inheritance research; the other is the innovative folding and cutting techniques independently explored and developed in the process of long-term academic research and practical creation. On this basis, the author breaks through the limitations of scattered and fragmented existing technical

records, and builds a systematic, standardized and comprehensive technical system of Chinese folded paper-cut, filling the gap in the special and systematic research on folded paper-cut techniques to a certain extent.

2. Discrimination of the Concept of Folded Paper-cut

Paper-cut is a distinctive folk plastic art with strong Chinese cultural characteristics, which is independently created and inherited by Chinese working people in long-term production and life to meet their diverse spiritual and cultural needs, aesthetic appreciation pursuits and daily decorative demands. As a traditional folk craft rooted in folk life, it takes manual cutting, meticulous carving and free tearing as its core creative means, and uses common daily materials such as paper, leather, silk and other thin slices as the creative carrier. Art creators shape vivid, delicate and visually appealing artistic images and decorative patterns on the surface of paper or thin slices through scissors, professional carving knives and other tools with exquisite manual skills, integrating folk aesthetics, cultural implications and practical decorative functions into one, becoming an important part of traditional Chinese folk art.

In the academic classification of traditional Chinese paper-cut art, according to two core classification criteria, namely the difference in specific cutting operation methods and whether the overall pattern has a symmetrical shape structure, paper-cut can be clearly divided into two major categories: flat-cut paper-cut and folded paper-cut. The two types of paper-cut differ significantly in creative operation steps, modeling logic and final pattern presentation, forming distinct technical characteristics and aesthetic styles respectively.

From the perspective of specific cutting operation methods, flat-cut paper-cut refers to a paper-cut creation technique that directly performs cutting, carving and other processing operations on the basis of completely flattening and unfolding the paper without any folding treatment, and the entire creative process is carried out on a single plane of the paper. In contrast, folded paper-cut adopts a more targeted and procedural operation method: creators first calculate and determine the number of symmetrical units to be presented in the pattern according to the creative needs, then fold the paper regularly and accurately in strict accordance with the number of these symmetrical units, and then perform cutting and carving operations on the folded paper, which is a creative technique combining folding processing and cutting molding.

From the perspective of the symmetry characteristics of paper-cut pattern modeling, flat-cut paper-cut presents individual independent decorative patterns in terms of visual effect, which has no fixed symmetry axis in structure and does not have the characteristics of mirror symmetry or rotational symmetry, with more free and flexible modeling forms and diverse creative expressions. While folded paper-cut is inherently characterized by symmetrical patterns, different paper folding angles, folding times and folding methods will directly lead to obvious differences in the final symmetrical form, arrangement structure and overall layout of the paper-cut patterns. Through scientific and regular paper folding operations, creators can flexibly cut 1 to 20 complete and regular symmetrical unit graphics in one creation; and theoretically, by optimizing and adjusting the folding method and folding times, more diverse, more complex and richer symmetrical pattern shapes can be created, which fully reflects the unique creative logic and artistic charm of folded paper-cut.

There are different views on how to define folded paper-cut, mainly as follows. Professor Chen Jing holds that: folded paper-cut, or fold-cut for short, is a simple, convenient and easy-to-learn monochrome paper-cut method; it is characterized by folding colored paper by a certain method, then drafting, pinning and cutting on the unit, and this method can cut symmetrical patterns and graphics, so it is also called symmetrical paper-cut. Paper-cut expert Zhang Yunxian states in her work that: the fold-cut method is a basic technique commonly used in paper-cut, which involves folding the paper in half or multiple times according to the needs of

the conceived and designed pattern, then cutting with scissors; after cutting, the folded and cut paper is unfolded and flattened to show interconnected graphics with different symmetry axes. Wang Changyin believes that: the fold-cut technique refers to cutting the paper after folding it in half, which is mainly used to make symmetrical patterns with the same style in two or more directions, and a single pattern can also be named by this technique if it has symmetrical characteristics inside. Paper-cut inheritor Sun Erlin holds that: folded paper-cut usually refers to cutting patterns by folding a piece of paper in half or multiple times. Synthesizing the views of various scholars, the author believes that there are two core ideas: one is folding the paper, and the other is cutting symmetrical patterns. Thus, the concept of folded paper-cut is summarized as follows: Folded paper-cut is a type of paper-cut that involves folding the paper first according to the needs of paper-cut creation and conception, then designing patterns within the folded units, and cutting into symmetrical and interconnected graphics. Folded paper-cut has the artistic characteristics of symmetrical patterns, strong sense of repetition, distinct rhythm and elegant rhythm. Folded paper-cut uses simple pattern units and produces unexpected wonderful effects through the reconstruction of continuity and symmetry. Various forms of folded paper-cut express different symmetrical and interconnected graphics. Folded paper-cut is the foundation of paper-cut creation and also an essential technique for learning paper-cut.

3. Review of the Theories of Folded Paper-cut Techniques

For a long time, the systematic theoretical research on the crafting techniques of Chinese folded paper-cut has been in a neglected and marginalized position in the entire field of paper-cut academic research, failing to attract the widespread attention and in-depth exploration of relevant scholars and researchers. In the development history of Chinese paper-cut research, the academic circle has long had an obvious imbalance in the research focus of paper-cut art. A small number of paper-cut theoretical researchers are often more keen on conducting in-depth discussions and academic research on the macroscopic dimensions of paper-cut art, such as its long historical origin and evolution process, distinctive regional cultural characteristics, rich folk cultural connotation and symbolic implication, and have achieved relatively rich theoretical results in these aspects. However, they rarely conduct specialized, systematic and in-depth theoretical sorting and technical research on the specific operational techniques, folding rules, cutting essentials and technical system construction of folded paper-cut. On the other hand, the vast majority of front-line paper-cut artists are long-term committed to the practical creation of paper-cut works, focusing on the improvement of practical skills, the innovation of pattern modeling and the creation of finished works, and take the presentation of artistic effects of works as the core goal. They lack the conscious sorting, theoretical refinement and systematic summary of folded paper-cut technical theories in the process of creation. Judging from the current overall research status and academic achievements in the field of Chinese paper-cut art research, although the theoretical research on folded paper-cut techniques is still relatively weak and fragmented, after sorting out and summarizing the existing scattered research results, technical notes and academic discussions, we can still sort out three representative academic viewpoints that have important influence on the theoretical system of folded paper-cut techniques.

The first one is the "radiating graphic division method" represented by Qin Shijiao and Chen Jing. This method involves folding a square paper at different angles and then cutting symmetrical graphics with the center of the circle as the emission point. The basic principle of this method is that folding the paper parallelly or diagonally once to form two-layer units is called the bisection method, folding it twice to form four-layer units is called the quartering method, and by analogy, the octant method and the sixteenth division method can be derived;

similarly, folding the paper once to form three-layer units is called the trisection method, folding it twice to form six-layer units is called the sixth division method; the fifth division method and the tenth division method can also be derived by analogy; in addition, there is the bisection continuous method: there are four forms of folded paper-cut techniques in total. This technical theory emphasizes taking the center point of the square paper as the folding center and conducting paper-cut design based on the number of folded hierarchical units as the basis for division.

The second one is the "several-petal shape method of folded paper-cut" represented by Sun Erlin. The core principle of this method is to fold a square paper, then draw and cut it into paper-cuts of three-petal, four-petal, five-petal, six-petal, lace and other flower shapes. This technical theory emphasizes the graphic characteristics of paper-cut effects and the above five common folded paper-cut methods.

The third one is the "skeleton folded paper-cut method" represented by Huang Hong. The folding methods are divided into symmetrical folding, continuous folding, triangular folding, square folding, pentagonal folding, hexagonal folding, etc., and then based on these as the skeleton, the design is changed to cut different patterns. The core of this technical theory is to divide folded paper-cut into three categories, namely symmetrical, continuous and angular, and design and create paper-cut works based on these as the skeleton.

The above three theories of folded paper-cut techniques are the representative academic viewpoints at present, and their core content is the elaboration of the basic and widely used folded paper-cut techniques. However, there are still some deficiencies in the theoretical research on folded paper-cut techniques. First, scholars have different opinions on the classification and description perspective of the same folding and cutting method in the category of folded paper-cut techniques. Second, the folded paper-cut techniques are incomplete, the traditional techniques are not fully collected, and the new techniques are not included. Third, the folding and cutting techniques are not systematic, and there is no induction, refinement and integration into a systematic theoretical structure. Therefore, it is necessary for researchers to standardize this theoretical system through careful textual research, demonstration and research.

4. The Structure of the Folded Paper-cut Technical System

The complete hierarchical structure of the folded paper-cut technical system constructed in this study can be clearly divided into three progressive and interrelated levels from basic application to advanced creation.

The first level belongs to the most fundamental and classic basic modeling techniques in traditional folded paper-cut art, mainly composed of symmetrical opposite-side folded paper-cut and angular diagonal folded paper-cut, which are the most primitive, widely used and representative folding-and-cutting creation methods in folk inheritance, and lay a solid morphological foundation for all subsequent derivative creative techniques.

On the basis of the above basic folding rules, the second level belongs to diversified extended derived techniques formed through artistic expansion and creative evolution, mainly including shape-adaptive variable folded paper-cut combined with graphic modeling rules and theme-based character folded paper-cut that integrates cultural implication and pattern structure, which enrich the expressive forms of traditional folding-and-cutting art greatly.

The third level is advanced integrated composite creation techniques with strong practical creativity, which refers to the comprehensive collocation, flexible colligation and integrated innovative application of all basic techniques and derived techniques mentioned in the former two levels. To be specific, it relies on reasonable interpenetration, orderly matching and flexible transformation of various folding-and-cutting rules at the first and second levels, so as to realize

diversified variable folding-and-cutting creation, multi-layer stacked layered folding-and-cutting expression and integrated pattern shaping, forming a complete and hierarchical advanced creation system of folded paper-cut techniques.

4.1. Basic Techniques

The core of folded paper-cut is to fold the paper and then cut symmetrical graphics. Theoretically, the basic techniques can cut 1 ~ N symmetrical unit graphics, which can be divided into two types: opposite-side folding and cutting, and diagonal folding and cutting, with a total of twelve folding and cutting forms.



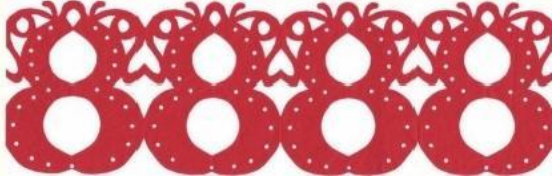









(1) Opposite-side Folded Paper-cut

Opposite-side folded paper-cut is a type of paper-cut that involves folding a square or rectangular paper along its opposite sides, then designing patterns for cutting to create artistic images. It can be divided into three forms: half-fold and cross-fold paper-cut, two-sided continuous folded paper-cut and four-sided continuous folded paper-cut.

(2) Diagonal Folded Paper-cut

Diagonal folded paper-cut is a paper-cut work that cuts one to twenty graphic units by taking the center point as the center of a square paper and according to the different number of graphic units and folding angles. Theoretically, many graphic units can be cut by folding, but the increase in the number of folding times will easily make the paper too thick and difficult to operate, so it is difficult to achieve an infinite number of foldings. Usually, the maximum number of foldings that can be achieved is decagonal folding, cutting out twenty unit graphics. Diagonal folded paper-cut is the most widely used folding and cutting method in folded paper-cut. This paper names the paper-cut according to the number of angles (sides) of the shape cut after diagonal folding, which is scientific, easy to understand and memorize. For example, the one that can be cut into a triangular (three-sided) shape after folding is called triangular folded paper-cut, the one that can be cut into a square (four-sided) shape after folding is called square folded paper-cut, and so on until decagonal folded paper-cut. Since triangular folded paper-cut and hexagonal folded paper-cut, square folded paper-cut and octagonal folded paper-cut, pentagonal folded paper-cut and decagonal folded paper-cut are of the same folding and cutting type, they are generally discussed in pairs. Heptagonal folded paper-cut corresponding to tetradecagonal folded paper-cut and nonagonal folded paper-cut corresponding to octadecagonal folded paper-cut are often omitted due to the practical difficulty in folding and cutting.

Table 1 shows the paper-cut examples cut by using the twelve basic folding and cutting methods.

 <p>Folded paper cutting</p>	 <p>Cross folding</p>	 <p>Two-sided continuity</p>			 <p>Four-sided continuity</p>	 <p>Triangular folding scissors</p>
	 <p>Four-corner folded cut</p>					 <p>Nine-cornered</p>

Hexagonal folding scissors		Octagonal folding scissors	Five-pointed folding scissors	Decagonal folding scissors	Seven-cornered folding paper	folding scissors
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4.2. Derived Techniques

Derived techniques refer to a series of creative modeling methods formed on the basis of inheriting and flexibly applying classic basic folding-cut rules in practical paper-cut creation. In specific artistic practice, creators combine the overall external contour characteristics, pattern structure features and thematic cultural implication of paper-cut works, rely on mature basic folding-cut logic to carry out targeted pattern conception, graphic design and layout planning, so as to create abundant and diverse paper-cut pattern works with rich forms, distinctive modeling effects and complete decorative aesthetics in the process of folding and cutting processing. In terms of internal classification system, such derived folding-cut skills can be generally divided into two major category systems, namely shape-adaptive folded paper-cut and thematic character folded paper-cut respectively. On the basis of these two main categories, each type can be further refined and subdivided into six detailed and targeted sub-class technical systems according to folding forms, contour structures and expression themes. Through multi-level derivation and expansion of folding rules, a rich technical system containing dozens of differentiated and operable folding-cut creation methods is gradually formed, which greatly expands the expressive boundary of traditional folded paper-cut modeling language.







(1) Shape-adaptive Folded Paper-cut

Shape-adaptive folded paper-cut is a paper-cut that is folded and cut within the inherent outer contour. The pattern design of shape-adaptive paper-cut should not only reflect the characteristics of the object but also adapt to the limitations of the outer contour, with natural interspersions to form an independent decorative beauty. Such paper-cut works have a complete outer shape and distinct characteristics, and the internal structure is skillfully combined with the outer contour, highlighting the rhythmic beauty of the pattern. It is widely used in traditional Chinese folk paper-cut and is also an important part of the decorative patterns of modern arts and crafts. Common shape-adaptive folded paper-cuts include circular folded paper-cut, elliptical folded paper-cut, rhombic folded paper-cut and corner folded paper-cut. Except for corner folded paper-cut, the other three types of shape-adaptive folded paper-cut can be cut within the outer contour by adopting folding and cutting methods such as triangular or hexagonal, square or octagonal, pentagonal or decagonal, heptagonal or nonagonal respectively. It is a kind of paper-cut with various forms and exquisite patterns that takes basic techniques as the modeling means.

(2) Character Folded Paper-cut

Among the numerous character folded paper-cuts, the paper-cuts with the characters of "Fu (blessing)", "Lu (prosperity)", "Shou (longevity)" and "Xi (joy)" are the most widely used. The "Double Xi (double joy)" pattern and the "Shou (longevity)" character pattern are two forms of applying folding and cutting methods in character paper-cuts. These two types of character folded paper-cuts stylize the "Double Xi" and "Shou" characters as the theme elements for creating paper-cut works, flexibly adopt basic folding and cutting techniques to design decorative patterns, and have various outer contours such as circular, elliptical, rhombic, square and irregular shapes. Character folded paper-cut works imply auspiciousness and joy with beautiful shapes.

Table 2 shows the representative paper-cut examples of the six subcategories of derived techniques cut by using basic techniques.

 <p>Circular folded diagram</p>	 <p>Elliptical hexagonal diagram</p>	 <p>Rhombus-shaped four-cornered diagram</p>	 <p>Diagram of the folded flower petals</p>	 <p>Happy Flower Folded Pattern</p>	 <p>The diagram of the "Shou" character folded diagonally in half</p>
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4.3. Comprehensive Techniques





Comprehensive folded paper-cut represents a sophisticated and advanced category in the entire Chinese folded paper-cut art system, which is a creative modeling technique that breaks through the limitations of single folding and cutting operations. This technique realizes the design and production of diverse and complex paper-cut shapes by adopting a variety of specialized, flexible and targeted folding and cutting methods, including partial precise folding and cutting, variable irregular folding and cutting, multiple repeated folding and cutting, as well as layered three-dimensional folding and cutting and other diversified technical means. Unlike the single and fixed operation logic of basic folding and cutting techniques and derived folding and cutting techniques, comprehensive folded paper-cut emphasizes the integrated utilization and flexible collocation of various technical paths, focusing on creating paper-cut works with richer hierarchical senses, more complex modeling structures and stronger artistic expressiveness through diversified folding and cutting combinations. The comprehensive folding and cutting method, as the core advanced technical form of folded paper-cut creation, is not a simple superposition of basic techniques, but a specific, flexible and integrated application of classic basic folding and cutting methods and shape-adaptive folding and cutting methods in actual artistic creation practice. It deeply integrates the operational logic of basic technical systems and the creative thinking of derived technical systems, combines the fixed folding rules of basic techniques with the flexible shaping characteristics of shape-adaptive techniques, and realizes the organic integration of technical standardization and creative flexibility. This advanced technique not only breaks through the creative limitations of single folding and cutting methods, but also greatly enriches the modeling forms and expressive dimensions of folded paper-cut, providing a solid technical support for the creation of complex, themed and innovative folded paper-cut works, and promoting the artistic upgrading and creative innovation of traditional folded paper-cut craft.

(1) Special Folded Paper-cut Techniques

Special folded paper-cut is a unique and innovative category in the Chinese folded paper-cut art system, which refers to a kind of folk paper-cut art form that breaks through conventional folding and cutting rules, and is designed and created through a variety of distinctive special folding and cutting techniques and flexible operation methods. This kind of paper-cut technique breaks the limitations of single and fixed traditional folding modes, and has extremely high artistic creativity and expressive tension. If creators master and apply special folded paper-cut techniques proficiently and flexibly in practical creation, they can easily cut out complex, diverse and layered paper-cut patterns with rich changes. These patterns not only perfectly present the unique rhythmic beauty and regular beauty of symmetrical art, but also highlight the vivid dynamic beauty of flexible changes within symmetry, showing a strong sense of

rhythm and unique aesthetic charm in the change of folding rules and pattern structure, which greatly enriches the visual expression effect of folded paper-cut.

Table 3 shows the paper-cut examples made by comprehensive folding and cutting techniques.

 <p>Special folding and cutting illustration: Cut the flowers using the triangular, pentagonal and heptagonal folding and cutting methods respectively.</p>	 <p>Special folding and cutting illustration: First, use the folding method to cut out symmetrical flowers, and then use the flat cutting method to cut out butterflies, etc.</p>	 <p>Second folding and cutting illustration: First, use the folding method to cut out the character "Spring", then use the eight-point folding cutting method to cut out the butterfly.</p>	 <p>Three folding and cutting examples: First, use the cross folding method to cut the "shou" character pattern; then, use the triangular folding method to cut the feathers; finally, use the cross folding method again to cut the outer circle.</p>
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Special folded paper-cut techniques have a long history of application in traditional Chinese folk paper-cut creation, and are widely used in various folk decorative paper-cut works such as window grilles, flower patterns and festival ornaments, becoming an important technical means to enrich the modeling form of folded paper-cut. Among numerous special folding and cutting techniques, the partial folding and cutting method is the most widely used, most operable and most commonly applied classic technique in folk creation. The core operation logic of the partial folding and cutting method is a creative process combining folded cutting and flat cutting: firstly, the paper is folded according to the set symmetrical unit rules, and the basic symmetrical pattern parts are cut and shaped by using the conventional folded cutting method; after the preliminary symmetrical cutting is completed, the paper is completely unfolded gently, and then targeted trimming, detail carving and pattern supplement are carried out on the paper surface by means of flat cutting without folding; finally, through the organic combination of the two cutting methods, the entire paper-cut work is refined and completed.

In addition to the partial folding and cutting method, there is another typical special folding and cutting technique—the variable folding and cutting method, which is a creative technique that breaks the complete symmetry of traditional folded paper-cut. The operation process of this method is based on the conventional folded cutting: first, complete the preliminary folding and cutting processing of the paper according to the standard folding steps to form the basic symmetrical pattern framework; then, on the basis of the folded and cut semi-finished product, carry out targeted local trimming, local modification and special shape adjustment on some pattern edges, detail structures or local units, so as to break the single complete symmetrical

structure on the basis of retaining the basic symmetrical characteristics, and finally create a paper-cut work with both symmetrical foundation and partial asymmetrical artistic effects, realizing the organic integration of symmetry and change, and endowing the paper-cut work with richer artistic personality and unique aesthetic value.

(2) Layered Folded Paper-cut Techniques

Layered folded paper-cut refers to a paper-cut cut by using different folding and cutting methods layer by layer with the folding and cutting method as the main means. The cutting method and layers can be pure folding and cutting or the interaction of folding and cutting and flat cutting according to the design needs; the number of cutting times can be two, three or multiple, and the folding and cutting methods of each layer are different. The works cut in this way have rich pictures and a strong sense of hierarchy, which is an advanced form of folded paper-cut. The cutting order can be from inside to outside or from outside to inside, mainly based on the characteristics of the pattern.

5. Conclusion

Chinese folded paper-cut, as a vital branch of traditional Chinese folk paper-cut art, boasts a long and profound developmental history that has been passed down among the folk for thousands of years, carrying rich traditional cultural connotations and unique folk aesthetic values. However, restricted by the social background, cultural transmission modes and academic research focus of different historical periods, the systematic theoretical research on folded paper-cut creation techniques has long been in a relatively backward state for a long time in the past, failing to form a complete, standardized and scientific theoretical system matching its long historical inheritance and rich artistic practices. Most of the traditional folded paper-cut techniques have been handed down orally and through hands-on teaching among folk artists, lacking systematic textual sorting and in-depth theoretical summarization, which has greatly restricted the standardized inheritance and academic research of this traditional craft.

Among the numerous archaeological discoveries of traditional Chinese paper-cut art, the unearthed cultural relics from the Astana ancient tombs in Xinjiang provide extremely precious physical evidence for tracing the origin and development of folded paper-cut. The earliest paper-cut works with clear documentary and archaeological records in China are precisely the exquisite folded paper-cut relics of the Northern and Southern Dynasties unearthed from this site, including a variety of octagonal folded paper-cut works such as "Pair of Monkeys Round Flower", "Geometric Pattern Round Flower", "Honeysuckle Pattern Round Flower" and "Chrysanthemum Round Flower", as well as the classic hexagonal folded paper-cut work "Pair of Horses Round Flower". These well-preserved ancient paper-cut relics are exquisitely crafted, with regular and symmetrical patterns, clear and smooth cutting lines, and distinct structural characteristics of folded paper-cut. They were respectively created by two mature and distinctive folded paper-cut techniques, which fully proves that as early as the Northern and Southern Dynasties, the folk folded paper-cut techniques in China had reached a fairly mature level in terms of folding methods, cutting skills and pattern design. This also marks that Chinese folded paper-cut had formed a relatively fixed technical logic and creative paradigm at that time, laying a solid technical foundation for the subsequent inheritance and development of folded paper-cut art.

Nevertheless, despite the long history and mature early techniques of Chinese folded paper-cut, there is still a prominent shortage of systematic written records, theoretical documents and special research materials related to its crafting techniques in the current academic field and historical document reserves. Most of the relevant records are scattered in ancient notes, local chronicles and folk art sketches, lacking specialized, systematic and in-depth theoretical sorting

and academic research. In this context, further improving, standardizing and scientifically constructing a complete theoretical system of folded paper-cut techniques has important practical significance and far-reaching cultural value. It can not only provide clear theoretical guidance and standardized technical reference for the practical creation of folded paper-cut, solve the problems of chaotic technical inheritance and irregular operation in current creation, but also build a systematic theoretical framework for the inheritance, protection and innovative development of this intangible cultural heritage, effectively promoting the sustainable inheritance, creative transformation and innovative development of traditional folded paper-cut culture.

The author has long been deeply engaged in the teaching practice, inheritance exploration and in-depth theoretical research of Chinese folded paper-cut art, devoting himself to sorting out traditional techniques and exploring innovative skills. Based on years of persistent practical creation and academic research, the author has not only systematically sorted out traditional folded paper-cut techniques, but also independently explored and summarized a series of innovative folded paper-cut techniques in long-term teaching and creation practice, including circular folded paper-cut, elliptical folded paper-cut, rhombic folded paper-cut, heptagonal folded paper-cut, nonagonal folded paper-cut and other special-shaped folded paper-cut new techniques, as well as rich and diverse comprehensive folded cutting techniques such as layered folded cutting and special folded cutting. In the research process, the author has always adhered to the integration of tradition and innovation, systematically integrating these newly explored practical techniques with classical traditional folded paper-cut techniques, striving to clearly clarify the complete hierarchical structure and internal logical relationship of the entire folded paper-cut technical system from a theoretical perspective, accurately and standardizedly describe the detailed operation process, technical points and creative essentials of each folded paper-cut technique, and constantly optimize and improve the relevant technical theories, so as to make the entire theoretical system more scientific, rigorous, systematic and perfect.

The author sincerely hopes that the research results of this paper can provide useful reference and theoretical support for the theoretical research, practical creation and skill inheritance of Chinese folded paper-cut art, fill the gaps in the current systematic research on folded paper-cut techniques to a certain extent, and further promote the in-depth excavation, standardized inheritance, creative transformation and innovative development of excellent traditional Chinese folk paper-cut culture, so that this ancient traditional craft can glow with new artistic vitality and cultural vitality in the new era.

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References

- [1] Chen J. The Techniques of Chinese Folk Custom Paper-cut[M]. Nanjing: Jiangsu Fine Arts Publishing House, 2011:10-11.
- [2] Zhang Y X. Paper-cut Application Tutorial[M]. Yinchuan: Yellow River Publishing and Media Group, Ningxia People's Publishing House, 2009:37-42.
- [3] Wang C Y, Yu F L. Paper-cut[M]. Changchun: Jilin Publishing Group Co., Ltd., 2013:44.
- [4] Sun E L. Folk Paper-cut Skills[M]. Beijing: Golden Shield Press, 2011:14-17.
- [5] Qin S J, Qin L C. Complete Atlas of Paper-cut[M]. Changsha: Hunan Science and Technology Press, 2018:10-12.
- [6] Huang H. Paper-cut Art[M]. Wuhan: Wuhan Publishing House, 2000:24-47.

- [7] Li M. Chinese Folk Paper-cut Modeling Art[M]. Xi'an: Shaanxi People's Fine Arts Publishing House, 2012:19-25.
- [8] Liu X D. Traditional Paper-cut Inheritance and Creation Techniques[M]. Jinan: Shandong Fine Arts Publishing House, 2015:31-36.
- [9] Zhao Y Q. Introduction to Folk Paper-cut Culture[M]. Taiyuan: Shanxi People's Publishing House, 2008:22-28.
- [10] Ding Y. Practical Teaching of Paper-cut Art[M]. Nanjing: Southeast University Press, 2017:41-46.
- [11] Wu Q. Research on Chinese Folk Paper-cut Craft[M]. Chengdu: Sichuan Fine Arts Publishing House, 2014:15-21.
- [12] Tan L. Patterns and Techniques of Traditional Paper-cut[M]. Guangzhou: Guangdong People's Publishing House, 2006:29-35.
- [13] Han Z G. Folk Art and Paper-cut Creation[M]. Zhengzhou: Henan Fine Arts Publishing House, 2010:11-18.
- [14] Lu S H. Basic Course of Paper-cut Decoration Art[M]. Hangzhou: Zhejiang Photography Publishing House, 2019:33-39.
- [15] Miao J. Regional Characteristics of Chinese Folk Paper-cut[M]. Lanzhou: Gansu Culture Press, 2013:26-32.
- [16] Shi L. Collation and Interpretation of Traditional Paper-cut Skills[M]. Hefei: Anhui Fine Arts Publishing House, 2016:17-23.