

การประยุกต์ศิลปะตัดกระดาษแบบจีนเพื่อออกแบบ
ภาพประกอบสามมิติในวรรณกรรมสำหรับเด็ก
Application of Chinese Paper-Cutting Art to
Create 3D Illustrations in Children's Literature

ซู เจีย¹

Su Jie

อติเทพ แจ้ดนาลาว²

Atitthep Chaetnalao

¹ นักศึกษาหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาศิลปะการออกแบบ
(หลักสูตรนานาชาติ) คณะมัณฑนศิลป์ มหาวิทยาลัยศิลปากร
Doctor of Philosophy Program in Design Arts Faculty
of Decorative Arts (International Program) Silpakorn University
(E-mail: jiesu8220@gmail.com)

² ผู้ช่วยศาสตราจารย์ ดร., สาขาวิชาศิลปะการออกแบบ
คณะมัณฑนศิลป์ มหาวิทยาลัยศิลปากร
Assistant Professor Dr., Design Arts, Faculty of Decorative Arts,
Silpakorn University
(E-mail: chaetnalao@hotmail.com)

Received: 20/08/2023 Revised: 20/11/2023 Accepted: 24/11/2023

บทคัดย่อ

หนังสือภาพสำหรับเด็กเป็นหนึ่งในตัวเลือกแรกๆ ในการศึกษาปฐมวัย ซึ่งส่งผลกระทบต่อความสามารถในการชื่นชมและวิจิตรของเด็ก (Yilmaz, R. M., Kucuk, S., & Goktas, Y. 2017) อย่างไรก็ตาม หนังสือภาพสำหรับเด็กในประเทศของเราส่วนใหญ่ซื้อจากต่างประเทศ และการประยุกต์และนวัตกรรมของการตัดกระดาษแบบดั้งเดิมในด้านการออกแบบสมัยใหม่ยังไม่เพียงพอ (Child, J., & Rodrigues, S. B. 2005) การศึกษาค้นคว้ามีวัตถุประสงค์ 1) เพื่อวิจัยและวิเคราะห์บทบาทของศิลปะที่สืบทอดต่อการผลิตหนังสือภาพสำหรับเด็ก 2) เพื่อแนะนำเทคนิคใหม่สำหรับศิลปะการตัดกระดาษของจีนในการสร้างภาพประกอบ 3 มิติ 3) เพื่อสร้างเนื้อหาและภาพประกอบที่สอดคล้องกับพัฒนาการทางสติปัญญาและทางกายภาพของเด็ก โดยผ่านการวิเคราะห์กรณี การทบทวนวรรณกรรม กรณีศึกษา และวิธีการถามผู้เชี่ยวชาญ จึงได้ดำเนินการออกแบบหนังสือภาพสำหรับเด็กที่มีลักษณะเฉพาะของศิลปะการตัดกระดาษ ผลการวิจัยได้แก่ ศิลปะการตัดกระดาษช่วยให้ผู้สร้างสามารถจัดข้อจำกัดของโลกแห่งวัตถุประสงค์ และแสดงวิสัยทัศน์ทางศิลปะของตนเองได้ ได้พัฒนาเทคนิคใหม่สำหรับศิลปะการตัดกระดาษของจีนในการสร้างภาพประกอบ 3 มิติ “ตำนานเหมยซานเนียง เทพล่าสัตว์แห่งหุบเขาตะวันตก” ในท้องถิ่นที่แพร่หลายอย่างกว้างขวาง ได้รับเลือกให้เป็นเนื้อหาการสร้างภาพประกอบ 3 มิติ ในหนังสือภาพสไลด์ตัดกระดาษ เพื่อสร้างภาพประกอบ 3 มิติที่เหมาะสมกับเด็กๆ ข้อสรุปการวิจัยมีดังนี้ 1. ศิลปะการตัดกระดาษช่วยให้ผู้สร้างสามารถจัดข้อจำกัดของโลกแห่งวัตถุประสงค์ และแสดงวิสัยทัศน์ทางศิลปะของตนเองได้ การผสมผสานของรูปแบบการตัดกระดาษทำลายอุปสรรคของสุนทรียศาสตร์ที่สมจริง และภาพที่สร้างขึ้นในรูปแบบที่เป็นเอกลักษณ์ที่รวบรวมการแสดงออกทางสุนทรียะของลัทธิเหนือจริง 2. เทคโนโลยีใหม่ของศิลปะการตัดกระดาษของจีนในการสร้างภาพประกอบ 3 มิติสามารถช่วยให้เด็กๆ ยอมรับและเข้าใจรูปภาพได้ดีขึ้น และปรับปรุงการโต้ตอบ 3. เลือกตำนานท้องถิ่นที่แพร่หลายอย่างกว้างขวาง “ตำนานแห่งเหมยซาน เทพล่าสัตว์ในหุบเขาตะวันตก” เพื่อสร้างภาพประกอบ

3 มิติที่เหมาะสมกับเด็กๆ ภาพประกอบเหล่านี้ส่งเสริมการประยุกต์ใช้วัฒนธรรมศิลปะการตัดกระดาษในการสร้างภาพประกอบสำหรับเด็ก และส่งเสริมการสำรวจศิลปะการตัดกระดาษในการสร้างวรรณกรรมสำหรับเด็ก หวังว่างานวิจัยนี้จะมีส่วนช่วยในการสืบทอดและพัฒนางานศิลปะการตัดกระดาษ

คำสำคัญ: ศิลปะการตัดกระดาษแบบจีน, ภาพประกอบสามมิติ, วรรณกรรมสำหรับเด็ก

Abstract

Children's picture books are one of the first choices for early childhood education, which greatly affects children's appreciation ability and way of thinking (Yilmaz, R. M., Kucuk, S., & Goktas, Y. 2017). However, most of our country's children's picture books are purchased from overseas, and the application and innovation of traditional paper-cutting in the field of modern design is not enough (Child, J., & Rodrigues, S. B. 2005). The purpose of this study is: 1) To research and analyze the role of inherited art in the production of children's picture books. 2) To suggest a new technique for Chinese paper cutting art in the creation of 3D Illustrations. 3) To create content and illustrations aligning with children's cognitive and physical development. Through case analysis, literature review, case study, and methods of asking experts, the design practice of children's picture books with the characteristics of paper-cutting art is carried out. The results of the research are: Paper-cutting art allows creators to get rid of the constraints of the objective world and express their own artistic vision; it has developed new techniques for Chinese paper-cutting art in 3D illustration creation; the widely circulated local "Legend of Meishan Niang, the Hunting God of Western Hunan" is selected as the Paper-cut

style picture book 3D illustration creation content to create 3D illustrations suitable for children. The research conclusions are: 1. Paper-cut art allows creators to get rid of the constraints of the objective world and express their own artistic vision. The combination of paper-cut patterns breaks the barriers of realist aesthetics, and the images created in unique forms embody the aesthetic expression of surrealism. 2. The new technology of Chinese paper-cut art in 3D illustration creation can help children better accept and understand pictures and improve interactivity. 3. Select the widely circulated local legend “The Legend of Meishan, the Hunting God in Western Hunan” to create a 3D illustration suitable for children. These illustrations promote the innovative application of paper-cutting art in the creation of children’s illustrations, and promote the exploration of paper-cutting art in the creation of children’s literature. It is hoped that this research can contribute to the inheritance and development of paper-cutting art.

Keywords: Chinese Paper-cutting Art, 3D Illustrations, Children’s Literature

Introduction

Chinese paper-cutting is a traditional Chinese folk art that uses paper and scissors to create intricate designs. Originating during the 6th century, paper-cutting has developed rich cultural meanings and aesthetic values in China over the past 1400 years (Lu Yan. 2004). As one of China’s important intangible cultural heritages, the Chinese government has attached great importance to the preservation and inheritance of paper-cutting art. A series of laws and regulations have

been introduced, such as the Law on Intangible Cultural Heritage enacted in 2011, to strengthen the protection and support for paper-cutting and other folk arts (CCG, 2011). However, the application and innovation of traditional paper-cutting in modern design fields are still inadequate.

In terms of 3D Illustrations in Children's Literature, many scholars have conducted research on this, such as Luckyhasnita, Chan, & Hutagalung (2021) DESIGNING A CHILDREN'S IQRA BOOK USING AUGMENTED REALITY TECHNOLOGY IN HIJAIYAH LETTERS. This paper introduces the use of augmented reality technology to design children's Iqra book (Iqra book) process and purpose. It addresses the impact of the disruption to teaching activities caused by the COVID-19 pandemic, particularly on children's Iqra learning. The authors propose the use of augmented reality technology to design Iqra books, which contain pictures and writing guides with the letters of Hijaiyah, aiming to present the Arabic alphabet to children in a more engaging and interactive way. The study conducted a trial on 20 children through the implementation phase, and concluded the effectiveness of learning using Iqra books and augmented reality technology, and made recommendations and future research directions. Use of Augmented Reality in Illustrated Children's Books and an Application Example studied by Karaata & Yilmaz (2023). This paper mainly explores the combination of traditional art and digital technology, bringing new aspects through augmented reality technology. Reading experience. The paper mentions how some artists combined traditional art with contemporary themes and how they carved a place in art history. Augmented reality (AR)

technology has great potential and importance in the field of children's books. It provides a more engaging and interactive reading experience that engages children more deeply in book reading and promotes their learning and development.

Previous studies on Chinese paper-cutting have predominantly centred on its history, artistic styles, cultural symbols, and folk customs. Few studies have explored the integration of paper-cutting into modern design and its application in contemporary artistic creations (Lv, & Huang, 2020). Especially paper-cutting, there is a research gap in the 3D illustration design of children's literature.

This research aims to introduce Chinese paper-cutting art into the 3D illustration design of children's literature. This is a very inspirational story based on the theory of child psychology and with the popular "The Legend of Meishan Niang, the Hunting God of Western Hunan" as the illustration. Analyze the role of paper-cutting in the creation of children's 3D illustrations, and develop new technologies suitable for children's paper-cutting 3D illustrations. Allow children to be exposed to traditional Chinese culture and exercise their way of thinking.

Objective of Research

- 1) To research and analyze the role of inherited art in the production of children's picture books.
- 2) To suggest a new technique for Chinese paper cutting art in the creation of 3D Illustrations.
- 3) To create content and illustrations aligning with children's cognitive and physical development.

Conceptual Framework

Explores the role of ideas, beliefs, values, and cultural practices in paper-cutting on shaping cultural processes. Focuses on intellectual movements, cultural production, and discourses in the development of the Chinese art of paper-cutting. Examines the influence of culture on social, cultural and education in student's storybooks

The Development Prospects of the Traditional- Chinese art of Paper-cutting

Explores the role of ideas, beliefs, values, and cultural practices in paper-cutting in shaping cultural processes. Focuses On intellectual movements, cultural production, and discourses in the development of the Chinese art of paper-cutting. Examines the influence of culture on social, cultural and education in students' storybooks.

Literature Review

Overview of Paper Cutting Art Style

(1) The stylistic characteristics of paper-cutting art

Paper-cutting is the art of engraving patterns on paper with scissors. With the advancement of technology, paper-cutting art and culture have become the main focus, and it has been extended to film and television works that use paper-cutting as raw materials to shape characters or tell stories—a point of departure (Yan, T. 2015, September). The artistic style of paper-cut aesthetics will gradually change with the development of time (Cheng, W., & Shifan, F. 2020). As an integral part

of Chinese culture, paper-cutting has different creative expressions and style characteristics in all kinds of paper-cutting (Wu, 2018).

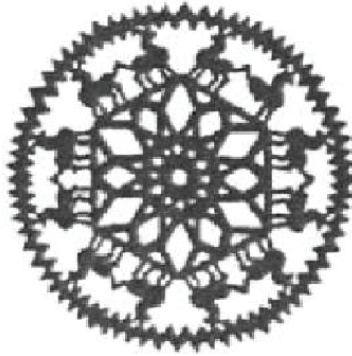


Figure 1 The earliest paper cuttings found in China

(2) Analysis of common paper-cutting pattern themes and related symbolic meanings The art of paper-cutting allows creators to get rid of the shackles of the objective world and express their own artistic vision (Gildersleeve, 2014). Inheritor artists use imagery life' expressive by fusing multiple angles, directions, and layers. Shape objects using line, color, rhythm or melody to create a unique visual language that reflects people's desires. The characteristics of these visual languages are based on imagery, which runs through the creation process of paper-cut characters. The combination of paper-cut patterns breaks through the barriers of realist aesthetics, and the imagery created in a unique form embodies the aesthetic expression of surrealism (Gryglewski, Ivashko, Chernyshev, Chang, & Dmytrenko, 2020).



Figure 2 Flower paper-cut



Figure 3 Bun-catching doll and architectural paper-cutting:
Yellow Crane Tower

the paper-cut art style applied to the creation of children's picture books analysis

(3) Overview of the development of children's picture books

A picture book is created by drawing, also known as a picture storybook, designed for children and considered the best for their learning process (Van Kraayenoord & Paris, 1996). This is mainly due to its unique narrative style and the aesthetic education it provides. Picture books for kids and teens mostly feature original, engaging illustrations, sometimes with text or even no text (Nikolajeva, & Scott, 2013). How picturebooks work. Routledge. The whole story and detailed narrative are conveyed through the expressive ability of the creator and the relationship between each image and its corresponding illustration (Paddison, Philo, Routledge, & Sharp, 2002).



Figure 4 “Dianshi Zhai” Pictorial (2001)

Many creators of children’s picture books do not aim to educate children in the traditional sense. Instead, they see themselves as companions and playmates, sharing their knowledge and life experiences from children’s perspectives. They use pictures that are appropriate for children’s understanding (Nodelman, 1988). These creators believe that specific values conveyed in children’s picture books serve as a “hidden curriculum” that brings joy to children (Kanak & Onder, 2017). Subtly, this playful knowledge also shapes children’s inner world and positively influences the development of their character and habits (Hirsh-Pasek, 2009).



Figure 5 The story of Peter Rabbit (2019)

Scope of the Study

1. Sample Group

Three experts in relevant research fields, Children's 3D illustration picture book.

2. Sample Size

The three experts are: an inheritor of Meishan paper-cutting and two children's picture book experts, five best-selling children's 3D illustration picture books from Taobao in 2023.

Method

Research Tools

1. Paper-cut pattern analysis: Collect samples of children's picture book artworks and evaluate how paper-cut elements are used in creation.

2. Expert interviews: Invite paper-cut artists, picture book authors, children's education experts, etc. to conduct interviews to obtain professional opinions.

This study aims to explore the Application of Chinese Paper-cutting Art to Create 3D Illustrations in Children's Literature. The main research methods are:

step 1: To collect paper-cut patterns that meet the standards of children's literature creation.

Step 2: To propose new techniques for the creation of 3D illustrations in Chinese paper-cut art

Step 3: To Design and create artwork using these Paper-cut techniques to develop 3D illustrations.

Step 4: To Invite paper-cutting art and children's illustration design experts to evaluate the work.

Step 5: To analyze expert opinions and further improve the paper-cut 3D illustrations.

Results

1. Paper-cut patterns suitable for 3D creation of children's literature illustrations

(1) Subject content standards: Choosing entertaining and positive themes, such as natural scenery, animals and plants, festival folklore, etc., is in line with the direction of cultivating children's good character (Mindes, 2006).

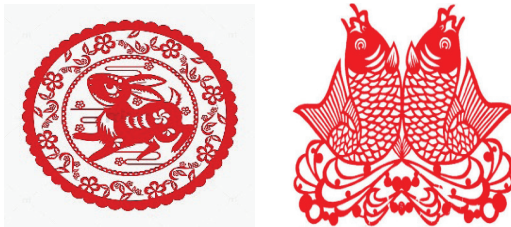


Figure 6 Paper cut pattern rabbit and fish

(2) Visual effect standards: The colors are bright, the lines are smooth, it has a sense of rhythm and rhythm, and it is full of imaginative space, which can attract children's vision and imagination (Lupton & Phillips, 2008).



Figure 7 Colorful paper-cut patterns of tigers and mandarin ducks

(3) Technical standards: Use paper-cutting techniques that are easy for children to understand and accept, such as symmetry, repetition, expansion and reduction, combination and deformation, etc. (Yiğit, 2004).



Figure 8 Symmetrical paper cut pattern

(4) Interactive experience standards: Add interactive elements such as cascading, pulling, and rotating to increase children's participation experience (Fortes Tondello, 2019).



Figure 9 Paper with interactive experience

(5) Fun standards: Use humor, exaggeration and other techniques to bring joy and surprise, and stimulate children's curiosity and fun (Cornett, 1986).



Figure 10 Exaggerated paper-cut patterns

(6) Storytelling standards: Combine the specific story content and character creation to enhance the scene and completeness of the illustration (Kilpatrick, Wolfe, & Wolfe, 1994).



Figure 11 Paper-cut pattern, mice stealing food

(7) Cultural Standards: Integrate traditional Chinese cultural elements and convey positive values (Wen & Clément, 2003).



Figure 12 Paper-cut pattern with positive energy

Taking the above criteria into consideration, paper-cutting techniques and elements that are beneficial to children's physical and mental development and rich in cultural heritage are selected, and applied to the creation of children's literature illustrations to produce positive educational significance and artistic effects. Traditional art in China does not only pursue external similarity but also expresses a kind of resemblance. Similar to words, patterns also have a solid ability for expression and a particular knowledge of generalization. Artists make subjective imaginations and drawings of characters in stories and then present them through paper cutting.

2. Correlation analysis of children's psychological characteristics and paper-cut style picture books

(1) Piaget's theory of cognitive development

Piaget believed that children's cognitive development is a process from low level to high level, which can be divided into the following four stages:

Sensitive period (0-2 years old): exploring the environment through sensory movement and forming the first cognitive structures.

Pre-operational period (2-7 years old): Thinking is still mainly intuitive, and image thinking and language are gradually developed.

Concrete operation period (7-11 years old): logical thinking can be carried out, but only for specific objects, and abstract reasoning has not yet been formed.

Formal operation period (after 11 years old): Ability to engage in abstract thinking and logical reasoning, and understand the relationship between concepts.

Piaget believed that children must go through these stages in order according to their own development, and the cognitive methods at different stages are different. Education should teach children in accordance with their aptitude and help children develop cognitive abilities appropriate to their age (Lefa, 2014).

Table 1 Piaget's theory of cognitive development and children's visual characteristics

Stage	Age	Features
Perceptual motion stage	0-2	It is not yet possible to distinguish complex visual information. Pay more attention to intuitive information such as visual shape, color, light and shadow changes.
Pre-operation-al stage	2-7	1. Ability to distinguish large and small near and far. 2. Image thinking gradually strengthens, and you can understand the characteristics of objects through observation. 3. More interested in details in pictures and willing to look for hidden information. 4. Color recognition is more acute and sensitive to bright and flood-light colors.
Specific computing stage	7-11	1. Transform image thinking into logical thinking and be able to analyze information. 2. Still sensitive to visual details and observing more carefully and comprehensively. 3. Color preference changes from bright to soft and elegant. 4. Able to understand implicit and philosophical visual artistic conception. 5. Good at using visual thinking to solve problems.

Stage	Age	Features
Formal computing stage	11-16	1. Understand the visual language of abstract intentionality. 2. Sensitive to aesthetic creation with delicate artistic conception. 3. Love symbolic and philosophical visual arts. 4. Have self-awareness and criterias. 5. Be good at analyzing the meaning of works from multiple angles. 6. Able to discuss creative intentions and techniques.

In creating children's picture books in the style of paper-cutting art, the psychological characteristics of children should be taken into account so that the artistic elements in paper-cutting match the psychological aspects (Barnes, 2015). The integration of paper-cutting and picture books is in line with children's cognitive level and their unrestrained way of thinking so that children can better feel the connotation of knowledge and artistic atmosphere shown in the picture books, understand and learn the beauty of Chinese folk art while having fun, and implicitly influence children's thinking (Kérchy, 2016).

(2) Children's psychological characteristics in the creation of picture books specific performance



Figure 13 The best-selling children's picture book from Taobao

Analyze and summarize the characteristics of children's picture books from the five best-selling children's picture books on Taobao in 2023. They are "Andersen's Fairy Tales", "Journey to the West", "Time Groove Picture Book", "Zoo" and "Two-Year-Old Baby". The specific characteristics are as follows:

1. Image refinement: Some artists want to make the content of picture books more vivid and exciting, and the patterns in picture books are more loved by children, usually by exaggeration and deformation. To make the objective objects highlight the characteristics of the items and convey their moral meaning. The subject should be combined, sorted and cut regularly (Walton, 2008).

2. Color rhythm: Unlike the traditional paper-cutting process, in the creation of illustrated books, it is possible to use rich colours to enhance the ornamental nature of the work. The art of paper-cutting can not only express realism but also outline romanticism full of imagination. Applying brilliant colours to create picture books will make the results of picture books break the rules and add colour (Cetti, 2017).

3. The creation of fun: When children read picture books, what attracts them most is usually the drawings in the book. To ensure the fun of the picture book, the creator will also use more exaggerated painting techniques to express the image of the characters in the creation process (Matulka, 2008).



Figure 14 A very hungry caterpillar

4. Vivid image design: If a picture book is to be successful, the creator must create a protagonist that is accepted and loved by children. The creator must flexibly use the theory of “panpsychism” in creating the story.

5. Incorporate creative thinking: Unlike adults, children are in the stage of understanding the world. Therefore, to observe the influence of the living environment on children in depth. Children are more likely to be interested in what they are familiar with when they are exposed to picture books, so we must satisfy them in the creation process and integrate our life experiences.

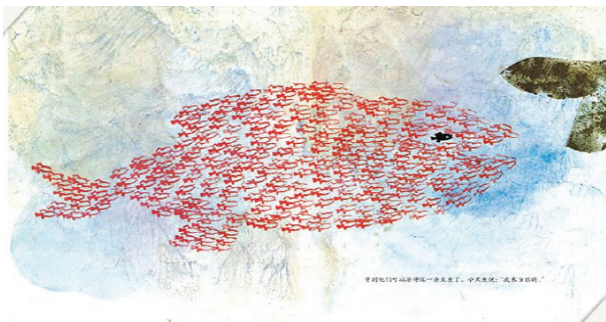


Figure 15 Small snakehead fish

4. Rich color application: For children, the perception of color is crucial. Studies have shown that many people have a specific aesthetic ability in childhood; many children have unique insights into the use of colour. Therefore, try to choose colours that conform to children's psychology to improve children's reading effect on picture books.

3. Meishan paper-cutting art is applied in children's picture book creation

1. Script case selection: Through research and online information, the local widely circulated "Legend of Meishan Niang, the God of Hunting in Western Hunan" was selected as the content of the paper-cut style picture book creation. This story is a very An inspirational story with a very simple plot, combined with traditional culture, and a mythological plot that can help children broaden their thinking. Almost every child in Meishan County knows this story.

Table 2 Story script design

Page	Text Content Presentation	Visual elements	Character Status	Scene conception
P1 P2	In ancient times, a girl named Meishan grew to be 15 or 16 years old and followed his father to go hunting.	Big mountains, flora and fauna, girls	Beautiful	Show the living environment of the Tujia people.
P3 P4	She is at archery and speaks the language of birds and animals, so every time she hunts, she always returns with a full load.	Beast, girl	Charac- terization. Energetic	Close-up; character gets a good harvest

Page	Text Content Presentation	Visual elements	Character Status	Scene conception
P5 P6	She does not beat the pregnant beast in winter and the hatching bird in spring.	Girl, young young animal	Animal: cute and naive	Close-up; girl freeing animals
P7 P8	She invented the earthen firearm and captured the bear, and was never harassed by the bear again.	Girl, Bear	Animal: majestic; character: brave	Close-up; girl aiming at bear with clay gun
P9 P10	Meishan's reputation soared, and the chieftain king got the news that he wanted to marry Meishan as his concubine, but Meishan refused to obey.	King of Toast, Girl	Personal-ity: sinister	Close-up; King Situ looked at the motionless Meishan.
P11 P12	The earth king said, "You cannot marry, if you can get rid of the tiger on the mountain will release you."	King of the Tuskers	Personal-ity: sinister	Close-up; the earth king's heartfelt speech.
P13 P14	Meishan went up to the northern mountains overnight to fight the tiger, and finally will be captured.	girl, tiger	Personal-ity: resolute and brave	Close-up; Meishan fights with a fierce tiger.
P15 P16	On the way home, he fell into a trap set by the earth king and died.	Girls, traps	Personal-ity: Sadness	Close-up; Trap in Meishan.
P17 P18	The news spread to the cottage, the Tujia people rose up, and the king was smashed.	Tujia people	Charac-ter: Grief and anger	The crowd marched angrily.
P19 P20	Since then, the Tujia people worshiped Meishan as the god of hunting, and blessed the Tujia people with safe hunting and abundant hunting forever.	Tujia people	Personal-ity: pious and respect-ful	Close-up; Tujia people praying for blessings.

2. Specific design

(1) Character set: The picture book's characters are "Meishan" and "Toast King".



Figure 16 Traditional prototype reference and Meishan Niang character design

(2) Color setting: Children's vision enters the development period from the age of 2. 3-6 years old, can clearly distinguish primary colours, and relatively saturated colours such as red and yellow are easier for children to distinguish (Zentner, 2001).

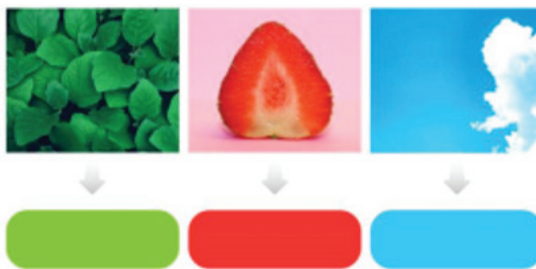


Figure 17 Color perception of preschoolers through RGB (2019)

4. New techniques for creating 3D illustrations in Chinese paper-cut art

New techniques of Chinese paper-cutting art in 3D illustration creation: 1. Compose the picture first 2. Use scissors to divide and cut into each part, such as characters, paintings, and land. 3. Paint the cut pattern and describe the light and shadow. 4. Then put the completed pattern back into the composition of the first step.

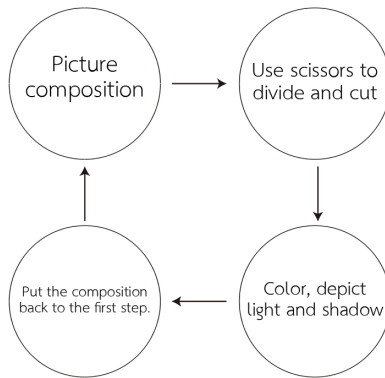


Figure 18 New techniques of Chinese paper-cutting art in 3D illustration creation

5. Picture book presentation



Figure 19 Illustrated book cover design effect schematic (left), back cover design effect schematic (right)

The lithographic presentation method is used to refine and transform the text and visual elements in the picture book, and the Meishan paper-cut art style is used to present a complete picture.

6. Ask the experts

In response to the research results, three relevant experts were invited to evaluate, namely the inheritor of Meishan paper-cutting and two children's picture book experts. The experts' views are summarized below:

Meishan paper-cutting inheritor: Some patterns are too complex, and the requester can be further simplified to be more in line with children's cognitive characteristics.

Children's picture book content expert: It is recommended to further highlight the theme and strengthen the coherence of story advancement. In addition, the color matching can also be softened to consider children's visual experience.

Children's picture book visual design expert: Pay attention to the proportional relationship between text and pictures.

Conclusion and Suggestions

1. Paper-cut art allows creators to get rid of the constraints of the objective world and express their own artistic vision. The combination of paper-cut patterns breaks through the barriers of realist aesthetics, and the images created in unique forms embody the aesthetic expression of surrealism.

2. New techniques of Chinese paper-cutting art in 3D illustration creation: 1. Compose the picture first 2. Use scissors to divide and

cut into each part, such as characters, paintings, and land. 3. Paint the cut pattern and describe the light and shadow. 4. Then put the completed pattern back into the composition of the first step.

3. The widely circulated local legend “The Legend of the Hunting God Meishan in Western Hunan” was selected to create a 3D illustration suitable for children. These illustrations promote the innovative application of paper-cutting art in the creation of children’s illustrations and promote the exploration of paper-cutting art in the creation of children’s literature.

This research can bring a new visual experience to creating children’s picture books, enrich children’s cultural lives, and promote their overall growth. Contribute to the inheritance and development of paper-cut art.

Suggestions

1. There is still a lot of room for exploration in the application of paper-cutting art to the creation of children’s picture books, and more styles and themes can be tried.

2. In terms of design techniques, we can learn from more three-dimensional book and interactive book technologies to increase the interactive experience.

3. The research can be extended to explore innovative applications of other traditional crafts.

4. Continue to expand international horizons and absorb relevant artistic innovation practices around the world.

References

- Barnes, R. (2015). **Teaching art to young children**. London : Routledge.
- Cetti, L. (2017). **The Exquisite Book of Paper Flower Transformations: Playing with Size, Shape, and Color to Create Spectacular Paper Arrangements**. New York : Abrams.
- Cheng, W., & Shifan, F. (2020). Theme, Characteristics, Inheritance and Innovation of Paper-Cut Art in Northern Anhui from the Perspective of Farming Culture. **Frontiers in Educational Research**, 3(15), 127-131.
- Child, J., & Rodrigues, S. B. (2005). The internationalization of Chinese firms: A case for theoretical extension? **Management and organization review**, 1(3), 381-410.
- Cornett, C. E. (1986). **Learning through Laughter: Humor in the classroom**. Bloomington : Phi Delta Kappa Educational Foundation
- Dodgson, N. A. (2019). Abstract depiction of human figures in impressionist art and children's picture books. **Computers & Graphics: X**, 1, 100002.
- Fortes Tondello, G. (2019). **Dynamic personalization of gameful interactive systems**. Retrieved, from <https://uwspace.uwaterloo.ca/handle/10012/14807>
- Gildersleeve, O. (2014). **Paper cut: An exploration into the contemporary world of papercraft art and illustration**. Beverly, MA : Rockport Publishers.
- Gryglewski, P., Ivashko, Y., Chernyshev, D., Chang, P., & Dmytrenko, A. (2020). **Art as a message realized through various means of artistic expression**. *Art Inquiry*, (22).

- Hirsh-Pasek, K. (2009). **A mandate for playful learning in preschool: Applying the scientific evidence.**
- Kanak, M. Ö. M., & Onder, M. (2017). Teaching values with stories and tales in the preschool period. **Journal of Education and Practice, 8**, 143-149.
- Karaata, E., & Yilmaz, N. (2023). Use of augmented reality in illustrated children's books and an application example. **Medeniyet Sanat Dergisi, 9**(1), 101-119.
- Kerby, M. C., Baguley, M., MacDonald, A., & Lynch, Z. (2017). A war imagined: Gallipoli and the art of children's picture books. **Australian Art Education, 38**(1), 199-216.
- Kérchy, A. (2016). **Alice in transmedia wonderland: Curiouser and curiouser new forms of a children's classic.** North Carolina : McFarland.
- Kilpatrick, W., Wolfe, G., & Wolfe, S. M. (1994). **Books that build character: A guide to teaching your child moral values through stories.** New York : Simon & Schuster.
- Lefa, B. (2014). The Piaget theory of cognitive development: An educational implications. **Educational Psychology, 1**(1), 1-8.
- Lu, Y. (2004). A brief discussion on the artistic characteristics of folk paper-cutting in my country. **Art Grand View, (4)**, 52-53.
- Luckyhasnita, A., Chan, A. S., & Hutagalung, G. A. (2021). Designing a children's iqra book using augmented reality technology in Hijaiyah letters. In **Proceeding ISLALE 2021 The 3th International Seminar on of Language, Art, and Literature Education, 14 October 2021, Universitas Negeri Medan.** (pp. 303-311). Indonesia : Universitas Negeri Medan.

- Lupton, E., & Phillips, J. C. (2008). **Graphic design: The new basics**. New Jersey : Princeton Architectural Press.
- Lv, Y., & Huang, R. (2020, December). A case study of Ningxia paper cuts culture. In **7th International Conference on Education, Language, Art and Inter-cultural Communication (ICELAIC 2020)**. (pp. 270-274). Netherlands : Atlantis Press.
- Matulka, D. I. (2008). **A picture book primer: Understanding and using picture books**. London : Bloomsbury Publishing.
- Mindes, G. (2006). **Teaching young children social studies**. London : Bloomsbury Publishing.
- Nodelman, P. (1988). **Words about pictures: The narrative art of children's picture books**. Georgia : University of Georgia Press.
- Paddison, R., Philo, C., Routledge, P., & Sharp, J. (2002). **Entanglements of power: Geographies of domination/resistance**. London : Routledge.
- Van Kraayenoord, C. E., & Paris, S. G. (1996). Story construction from a picture book: An assessment activity for young learners. **Early Childhood Research Quarterly**, 11(1), 41-61.
- Walton, K. (2008). **Marvelous images: On values and the arts**. Oxford : Oxford University Press.
- Wen, W. P., & Clément, R. (2003). A Chinese conceptualisation of willingness to communicate in ESL. **Language Culture and Curriculum**, 16(1), 18-38.
- Wu, F. (2018). **Research on the Unique Cultural Characteristics of Shanghai Style Paper Cutting**. Retrieved, from [https://webof-proceedings.org/proceedings_ series/ART2L/ICCLAH%202018/](https://webof-proceedings.org/proceedings_series/ART2L/ICCLAH%202018/)

ICCLAH002.pdf.

- Yan, T. (2015, September). Research on the New Technique of Paper-cut Art based on Decoration Pattern and Design Ideas of Contemporary Art. In **2015 Conference on Informatization in Education, Management and Business (IEMB-15)**. (pp. 1028-1032). Netherlands :Atlantis Press.
- Yiğit, N. (2004). **Industrial product design by using two-dimensional material in the context of origamic structure and integrity**. Turkey : Izmir Institute of Technology.
- Yilmaz, R. M., Kucuk, S., & Goktas, Y. (2017). Are augmented reality picture books magic or real for preschool children aged five to six?. **British Journal of Educational Technology**, 48(3), 824-841.
- Zentner, M. R. (2001). Preferences for colours and colour-emotion combinations in early childhood. **Developmental Science**, 4(4), 389-398.