

The Development and Evolution of Henan Wheat Stem Painting Craft

He Peiwei^{1*}, and Supachai Areerungruang²

Faculty of Decorative Arts, Silpakorn University, Thailand ^{1*}

Faculty of Decorative Arts, Silpakorn University, Thailand ²

*Corresponding author, e-mail: 0hepeiwei@163.com

Received: November 10th 2025; **Revised:** April 12th 2026; **Accepted:** April 22th 2026

Abstract

Henan straw painting is an important intangible cultural heritage. With the changes in society and aesthetics, its techniques and forms have significantly evolved, possessing dual artistic and cultural value. However, there is still a lack of research on the evolution of its process system. This study systematically explores the evolution of Henan straw painting production techniques and tools, analyzes the craftsmanship characteristics and cultural connotations of representative works, and evaluates their contemporary inheritance value and development potential. Using qualitative research, comprehensive literature review, and field investigation, semi-structured interviews were conducted with three inheritors, Nie Yuanzheng, Chang Aiying, and Yuan Yueying. Two expert discussions were organized to systematically examine the evolution of skills. Research has found that: 1) Tools have undergone iterations from traditional cutting tools to precision instruments, and with the assistance of digital design, production efficiency and precision have significantly improved; and 2) Three inheritors form a differentiated path - Nie Yuanzheng improves tools to expand artistic boundaries, Chang Aiying promotes standardized production to connect with the market, Yuan Yueying adheres to traditional craftsmanship to ensure authenticity, and the three complement and coexist. The technological innovation has achieved the transformation from folk decoration to high-end collectibles, providing practical reference for the modern transformation of traditional handicrafts.

Keywords: Henan straw painting, Handicraft skills, Intangible Cultural Heritage, Development and Evolution

Introduction

Henan straw painting is a three-dimensional relief art that uses straw as a medium and integrates the agricultural civilization of the Central Plains with folk aesthetics. It originated in the Tang and Song dynasties, flourished in the Ming and Qing dynasties, and has been passed down for over 800 years. Through processes such as ironing, cutting, and shaping, the natural texture of wheat

straw is transformed into Eastern imagery of flowers, birds, figures, mountains, rivers, and pavilions. It not only carries the ecological wisdom of "respecting heaven and cherishing things", but also embodies the craftsmanship spirit of "turning decay into wonder". As a representative work of intangible cultural heritage in Henan Province, wheat straw painting was listed on the provincial intangible cultural heritage list in 2008 and included in the first batch of national traditional craft revitalization catalog in 2018. It is an important carrier of folk memory and aesthetic paradigm in the Yellow River Basin.

The current policy support has failed to fundamentally reverse its development difficulties. The industry is facing three core challenges: firstly, the slow evolution of skills. The craftsman group adheres to the concept of "handmade first" and has a low acceptance of new technologies such as laser engraving and digital dyeing. The production process still remains at the level of the 1980s, and a single piece of work takes hundreds of working hours, which restricts the breakthrough of production capacity and artistic expression. Secondly, inheriting the ecology is worrying. The aging of practitioners is severe, the reserve of young talents is insufficient, the vocational education system is lacking, and the inheritance of skills is facing intergenerational gaps. Finally, the innovation mechanism is weak. The subject matter is confined to traditional patterns, and the material processing and expression forms are severely homogenized, making it difficult to meet contemporary aesthetic needs, resulting in a continuous decline in market competitiveness.

This dilemma reflects the deep contradiction between external policy empowerment and endogenous innovation momentum in the protection of intangible cultural heritage. Existing research has mostly focused on the research, training, and industrial application of Henan straw painting, and there is still a lack of research on the systematic evolution of its technical process (Wang, 2022). Under the dual background of rural revitalization and the strategy of building a strong cultural country, Faced with the widespread survival crisis of traditional crafts in the transition period of modern society, it is urgent to explore the inherent laws of their dynamic inheritance, a systematic study of the evolution trajectory of Henan straw painting techniques and the characteristics of representative works, analyzing the influencing factors of its production process, exploring the application path of modern technology, Aiming to address the three major challenges mentioned above: solving the dilemma of evolutionary lag by analyzing the laws of technological evolution, improving the inheritance ecology by examining the differentiated paths of inheritors, and activating innovation mechanisms by evaluating the effectiveness of modern technology applications, is of great practical significance for promoting technological innovation, improving production efficiency, and optimizing the expression of works. It will also provide useful references for the contemporary transformation of traditional crafts.

Objectives

1. To clarify the evolution trajectory of the craft process of Henan straw painting and examine the inheritance and transformation of key techniques
2. To explain the material improvement and functional evolution of production tools (such as cutting tools and pressing equipment), and analyze their supporting role in efficiency and artistic expression.
3. To organize and analyze the craftsmanship characteristics of representative works, and compare and summarize the techniques and styles of inheritors.

Literature Review

1. Historical Origins and Development Trends

The craft of wheat straw painting in Henan has a long history, which can be traced back to the Sui, Tang, and even Qin and Han dynasties. Research has shown that this craft reached its peak during the Tang and Song dynasties and was exclusively used by the imperial family. By the Ming and Qing dynasties, it had been widely circulated among the people (Huang, 2020). At the end of the Song Dynasty, decorative items such as fans and insect shapes made of wheat straw had already appeared. By the Qianlong period of the Qing Dynasty, the flat pasting technique in the Qingfeng area of Puyang had become more mature. Compared to the extreme preservation of the original form of materials in Japanese straw fine craftsmanship and the technical pursuit of geometric patterns in European straw inlay technology, Henan straw painting emphasizes the integration of painting and three-dimensional relief effects, forming a unique Eastern aesthetic paradigm

2. Evolution and Innovation of Manufacturing Techniques

The art of straw painting has undergone a development process from traditional flat pasting to three-dimensional diversity. In the early days, flat pasting was the main method, and the process was relatively simple (Zhu, 2024). In the 1980s, specialized production was reestablished, and the emergence of three-dimensional ironing techniques in the 1990s significantly enhanced artistic expression. Since the 21st century, the three-dimensional ironing technique has been further improved, and traditional themes have been integrated with modern techniques, giving rise to various new styles such as straw craft porcelain bottles and screens (Wang, 2022). The "wheat straw microfilament inlay" technique developed by inheritor Huang Yanyong achieves a deep integration of intangible cultural heritage techniques and modern fashion by thinning wheat straw filaments to 0.1 millimeters (Li, 2025).

3. Formation and Development of Artistic Features

Henan straw painting combines painting, Paper Cuttings, pyrography and other artistic techniques to form a unique style of simple, elegant and bright color. Its themes cover figures, flowers and birds, mountains and waters, etc., constantly innovating in inheritance. For example, Nie's wheat

straw paintings developed relief style pasting method (Han, 2024), while Yuan Yueying created three-dimensional wheat straw paintings with oil painting characteristics (Li, 2021), enriching the forms of artistic expression.

4. Contemporary Inheritance and Industrialization Development

In 2008, wheat straw painting was included in the national intangible cultural heritage list, providing institutional guarantees for its inheritance. In terms of industrialization, various production forms such as families, cooperatives, and companies have been formed in Puyang, Zhumadian, and other places. Family brands such as Nie's and Liu's have continuously innovated to promote industrial development (Zhang, 2015). There are still shortcomings in current research, Existing literature mostly focuses on historical tracing and artistic appreciation, lacking vertical tracking of the evolution of skills, particularly weak systematic analysis of changes in production tools, and no academic dialogue has been established with international research on straw/natural material technology in the future, it is necessary to strengthen the systematic sorting of production processes and longitudinal analysis of tool evolution, further exploring their inheritance and innovation mechanisms.

5. Theoretical Framework and Research Perspective

Existing research mostly focuses on historical tracing and skill description, lacking a systematic integration of theoretical frameworks such as craft research, intangible cultural heritage theory, and material culture research. This study introduces a triple theoretical perspective: technology tool co evolution (Li et al., 2025), sustainable cultural innovation (Yan & Li, 2023), and the social life history of objects (Koppanen & Lindfors, 2025), aiming to place Henan straw painting in the academic dialogue of international handicraft research and heritage conservation.

Conceptual Framework

This study is based on the theories of process evolution, technological innovation, and cultural heritage protection. It defines the "evolution path" as the dual dimension of inheritance and innovation, and "skills" cover four aspects: tools, processes, materials, and expressions. It assumes that the tension of skills and external forces jointly drive evolution, thereby affecting the transformation effect from traditional to modern. This is verified through literature, field, and skill analysis (Figure 1).

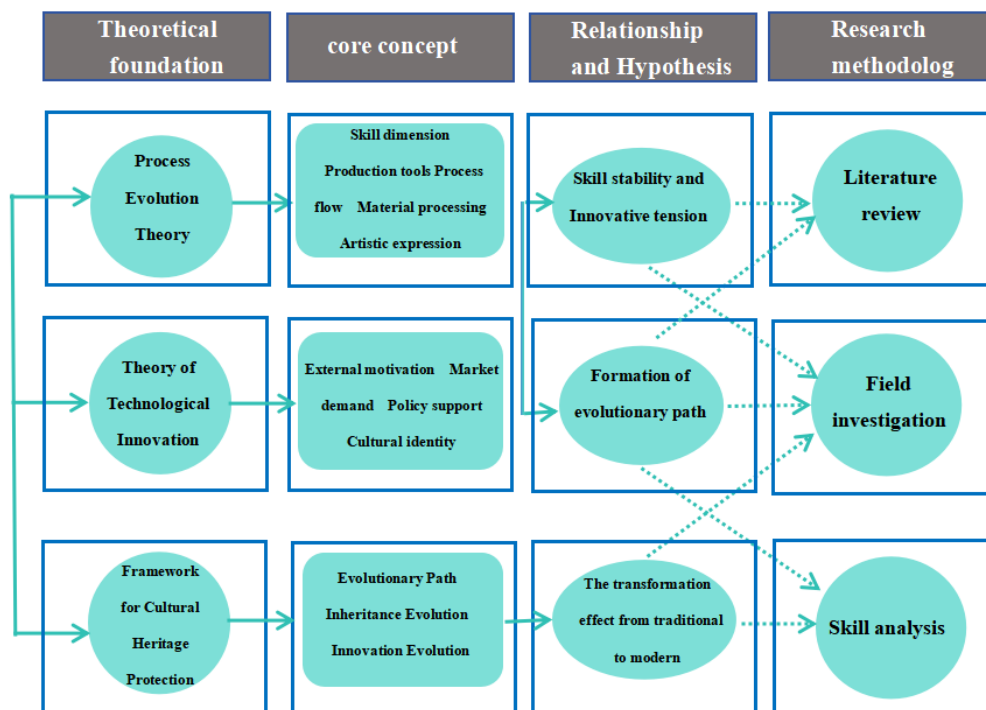


Figure 1 Conceptual Framework Diagram

Research Methodology

This study mainly adopts qualitative research methods, combined with literature review, field investigation, and interviews with experts and craftsmen, to comprehensively understand the evolution process and technical characteristics of Henan straw painting skills, and to deeply understand the production process of excellent straw painting works. Research introduces the triangulation strategy and grounded theory coding logic to ensure the transformation from descriptive data to verifiable conceptual models.

1. Literature review method

This study systematically reviewed academic literature in the field of Henan straw painting production technology. The sources of literature include academic monographs and research papers of domestic and foreign scholars; Paper and electronic professional books obtained through domestic library systems and online bookstores; And research literature retrieved from authoritative academic databases such as China National Knowledge Infrastructure (CNKI) and Google Scholar. The search focuses on core issues such as the historical development, production techniques and tools, representative figures and their works of Chinese straw painting, and systematically sorts, classifies, and critically analyzes the collected literature. On this basis, establish a cross temporal comparison dimension, using historical literature records as a benchmark, and compare them with contemporary field data to identify the continuity and breakpoints of skill evolution.

2. On site investigation method

In order to conduct in-depth research on the current status of wheat straw painting production in Henan, this study selected representative wheat straw painting production areas in the province for field research based on research objectives and existing problems. The specific samples include four handicraft workshops in Puyang City, the birthplace of straw painting, as well as two handicraft workshops each in Zhumadian City and Pingdingshan City. The research adopts a combination of in-depth interviews (targeting core technicians and managers of workshops/enterprises) and on-site participatory observation. By delving into the front lines of workshops and enterprises, first-hand information on production equipment and tools, process flow, technological innovation, and representative works of one enterprise and three handicraft workshops was systematically obtained. The study adopts a multi case comparative design to compare the similarities and differences between workshops of different regions and scales, and transforms observation records into structured data as empirical support for subsequent coding analysis.

3. Expert Interview Method

This study selected 8 representative core practitioners of Henan straw painting for semi-structured in-depth interviews. The interviewees include Mr. Nie Yuanzheng, a representative inheritor of national intangible cultural heritage (straw painting), Ms. Chang Aiyong and Ms. Yuan Yueying, representative inheritors of provincial intangible cultural heritage (straw painting), as well as five senior front-line technical backbones. This method can deeply obtain first-hand experience, tacit knowledge, and professional insights formed by the interviewees based on long-term practice. These oral history materials have irreplaceable value for exploring the historical evolution trajectory of straw painting production techniques, the inheritance and innovation of technical details, and understanding the creative background and process of representative character works. All interviews are transcribed word for word, strictly following the three-level coding program of "openness axis selection" to extract categories; And through the mechanism of member verification and data triangulation, ensure the credibility of the analysis results and the robustness of the theoretical model.

Results

1. The evolution of Henan straw painting production technology and techniques:

The technique of Henan straw painting has been passed down for hundreds of years, forming a unique craft system. In the early days, handmade production was the main focus, while modern fusion innovation introduced new technologies such as electric irons and laser engraving to improve production efficiency and precision.

1.1 Production process of Henan straw painting

The production process of Henan straw paintings is complex and exquisite, mainly including 15 steps such as material selection, soaking, steaming, material selection, re soaking,

fumigation, steaming, rinsing, planing, ironing, scraping, coloring, pattern design, splicing wheat strips, cutting and engraving patterns, pattern coloring, decoration and framing, as shown in Figure 2. Among them, material selection is particularly crucial, and wheat straw with good glossiness and uniform color should be selected. After multiple soaking and fumigation treatments, the straw can be made soft, corrosion-resistant, and insect resistant. Subsequently, the wheat straw is flattened and easily processed through steps such as steaming, rinsing, casting, and blanching. In the pattern making stage, artists need to first design patterns, then cut and carve the processed straw into fine strips or microfilaments, and gradually construct the visual hierarchy through techniques such as collage and ironing. Finally, the pattern coloring, detail decoration, and overall framing are carried out to complete a beautiful straw painting.

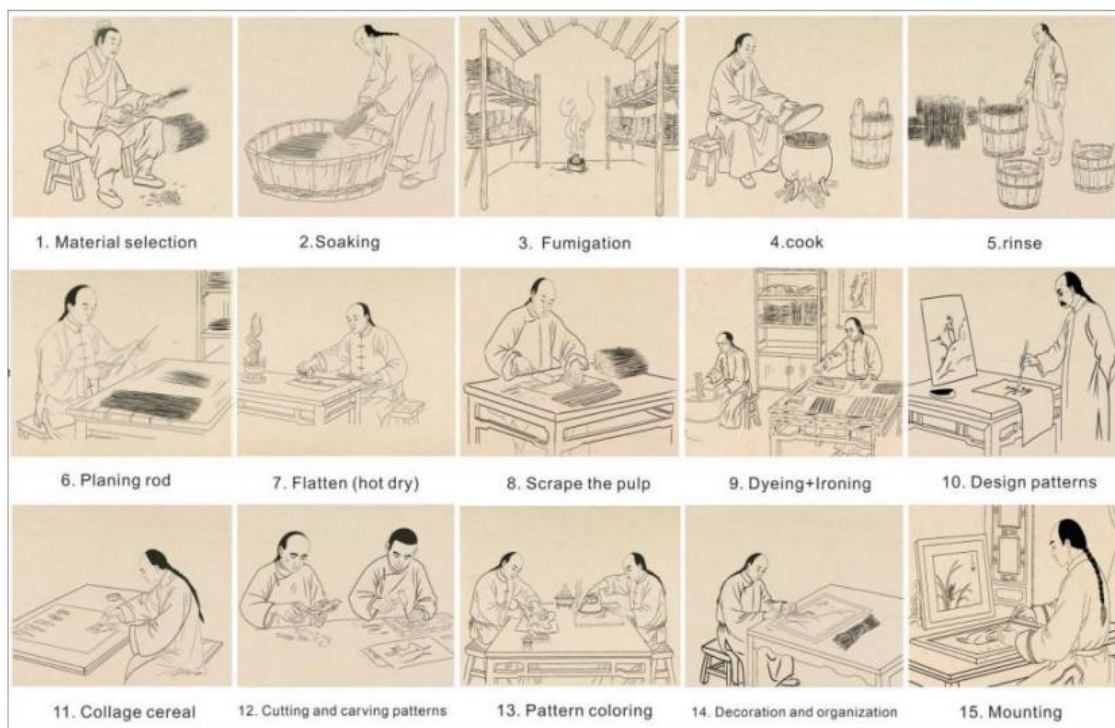


Figure 2 Process Diagram of Traditional Straw Painting in Henan Province

Source : He Peiwei (2025)

1.2 Changes in Henan straw painting techniques during different periods.

During the Ming and Qing dynasties, Henan straw paintings were mainly based on flat pasting. During the reign of Emperor Xuande of the Ming Dynasty, the Nie family of Qingfeng developed more than ten "flat pasting techniques" including material selection, fumigation, cutting, and pasting. They used temperature control to color and traditional Chinese medicine fumigation to fix the color. During the same period, the Wang family developed techniques such as "silk cutting" and "cutting and carving", using plant glue to paste auspicious patterns such as "Fishing, Woodcutting,

Farming, and Reading", laying the foundation for a black background and antique style (China Intangible Cultural Heritage Network, 2014).

From the late 20th century to the early 21st century, techniques developed towards a three-dimensional approach. Nie Yuanzheng, the inheritor of the Nie family, created the "multi-level pasting technique" and achieved relief effects through layered stacking (Figure 1); The "Mao Mao Ci" technique splits wheat straw into fine threads and diagonally cuts and presses them, making animal hair lifelike (Li, 2024). Wang Huaping, the inheritor of the Wang family, broke through the limitations of carriers and developed a "relief style three-dimensional design". He pioneered porcelain plate wheat straw painting and attempted natural material collage (Puyang Civilization Network, 2025)



Figure 3 Nie Yuanzheng's work: "Howling of the Tiger"

Source : Nie Yuanzheng (2025)

Contemporary innovation focuses on cross media integration and technological diversification. Wang Huaping used natural materials and wheat straw to create comprehensive material paintings, and promoted the use of techniques in the education system. Relevant works have been included in primary and secondary school art textbooks. Nie Yuanzheng combined the techniques of pyrography and traditional Chinese painting, using a three-level temperature control technology of carbonization of "deep paste, medium paste, and light paste", to achieve a gradient blending effect of monochromatic straw, making landscape paintings both layered with light and shadow and full of freehand charm (Cui & Wang, 2024).

Some straw painting studios (workshops) have introduced laser engraving machines for rough straw cutting, which can quickly and accurately complete the cutting of complex shapes, greatly shorten the construction period, and greatly improve production efficiency (Wu, 2024).

The evolution of techniques in Henan straw painting reflects a transition from "single plane" to "multi-dimensional" and from "manual experience" to "technological empowerment". These innovations not only continue the core of ancient methods such as fumigation, bleaching, and

scraping, but also transform the straw of agricultural civilization into an artistic carrier that carries modern aesthetics through material crossover and technological advancement, providing a paradigm for the active inheritance of intangible cultural heritage.

2. Tools used in the production of Henan straw paintings

At present, the main production method of Henan straw painting involves using carbon branding tools for ironing, supplemented by carving knives and scissors. With the development of modern technology, the tools used in Henan straw painting have become more modern and technological.

2.1 Main production tools

The core production tools for Henan straw painting include three categories: carbon branding pens, cutting and scraping tools, and carving tools, forming the basic production system: branding pens achieve coloring by carbonizing straw, traditional charcoal fire iron pens are upgraded to electronic controlled constant temperature branding pens, which can accurately control temperature from 150 degrees to 450 degrees to generate gradient effects; In the cutting tools, the high carbon steel cutting blade has a thickness of about 0.5 millimeters and is responsible for longitudinally splitting the wheat straw, while the bronze scraper removes the inner flesh to reduce the thickness of the straw slices to transparent; Carving tools use triangular chisels to create hollow patterns, needle tip carving pens to carve hair and details.

2.2 Main auxiliary production tools

Tweezers are used to pick up and fix small wheat straw slices, making it convenient for fine operations; Glue is used to stick straw slices onto a canvas or canvas to ensure their firmness; The adhesive pad can prevent damage to the desktop during pasting, while providing a flat pasting surface; Copy paper is used to draw initial design drafts, making it easier to transfer patterns onto straw slices; A hole puncher is used to make small holes on wheat straw slices, making it convenient to thread them through for fixation or special decoration; Pigments are used to add color to straw paintings and enhance the artistic expression of the works; Sulfur is used to treat wheat straw, which can prevent corrosion, insects, and fix color, making wheat straw paintings more durable and brightly colored; Coloring tools such as brushes are used to apply pigments or create special effects, making straw paintings more artistically infectious (Figure 4).



Figure 4 Main auxiliary production tools

Source : He Peiwei (2025)

2.3 Modern auxiliary production tools

The application of modern tools has brought important innovations to the production of straw paintings. The electric iron adjusts the toughness of wheat straw through temperature control, making it easy to create curved shapes such as petals (China Arts and Crafts Institute, 2022). The temperature controlled branding pen can accurately control the temperature, making the straw appear rich in color and enhancing the three-dimensional sense of the work. The introduction of laser engraving machines has significantly improved production efficiency and accuracy, enabling the rapid engraving of complex patterns and ensuring consistency in batch products. The measured single piece time has been reduced from 45 minutes by hand to 3 minutes, and the daily production capacity has increased from 5 pieces to 80 pieces, greatly meeting market demand. As shown in Figure 3, Nie Yuanzheng created a straw painting based on the movie "Ne Zha", which was completed with the assistance of a laser engraving machine. These modern tools have expanded the artistic expression space of straw painting while retaining the essence of traditional craftsmanship, injecting new vitality into its contemporary development.



Figure 5 Laser engraving machine

Source : He Peiwei (2025)



Figure 6 Laser engraving wheat straw painting "Nezha"

Source : He Peiwei (2025)

These modern tools have expanded the artistic expression space of straw painting while retaining the essence of traditional craftsmanship, injecting new vitality into its contemporary development.

3. Representative works of Henan straw painting and their craftsmanship:

3.1 Representative Works and Craftsmanship of Nie Yuanzheng

Nie Yuanzheng (born in 1959), from Qingfeng, Henan, is a representative inheritor of national intangible cultural heritage (wheat straw cutting and pasting). At the age of 8, he studied art with his father and has been deeply involved for more than 40 years. He has been awarded the title of "China's Top Ten Folk Artists" and the first batch of national level rural master craftsmen. Representative works such as "Eight Horses" and "Lady Guo's Spring Tour" have been permanently collected by the China Agricultural Museum and other institutions. His works not only inherit ancient charm, but also integrate modern aesthetics, with extremely high artistic value.

Nie Yuanzheng created the "Spring Outing Picture of the Lady of Guo State" (Figure 7), which carefully selected wheat stalks such as "Laozi Mai", soaked, fumigated, cut, carved, and ironed, and then pasted and mounted layer by layer. Its unique "Mao Mao Ci" technique involves cutting and pasting straw fibers diagonally, presenting an embroidered texture; At the same time, breaking through the plane and developing multi-level relief pasting, making the picture clear in layers. This work combines traditional Chinese painting and printmaking techniques, with vivid characters and showcasing the unique charm of straw painting.



Figure 7 “Spring Outing of the Lady of Guo State”

Source : Nie Yuanzheng (2025)

3.2 Representative Works and Craftsmanship of Chang Aiying

Chang Aiying, born in Qingfeng, Henan in 1971, is a representative inheritor of wheat straw painting in Xinxiang and a master of arts and crafts in Henan Province. Graduated from the Fine Arts Department of Henan University in 1992, and pioneered the "3D painting ironing technology" in the same year, which achieved multi-level light and shadow of wheat straw through temperature control and pressure, breaking through the limitations of flat surfaces. In 1998, Hengli Arts and Crafts Factory was founded, and its works have twice won the UNESCO "World Outstanding Handicraft Badge". In 2018, the "Spring Voice Ecological Culture Park" was established to promote the integration of non heritage cultural tourism. His creations blend Tang and Song poetry, as well as European and American classics, with diverse styles and innovative craftsmanship to achieve modern expression of traditional intangible cultural heritage.

Chang Aiying's representative work "The Catcher in the Rye" (Figure 8) interprets "hope and harvest" through abstract wheat waves and children. The work uses three-dimensional ironing technology: the central wheat ear is pressed at a high temperature of 400 degrees Celsius to create a relief texture, symbolizing the granary; Mailang exhibits wind movement through gradual temperature control from 300 degrees Celsius to 150 degrees Celsius; The child's contour is outlined at 200 degrees Celsius and embedded with straw circles to enhance their gaze. This work breaks through the traditional flat design and integrates the relationship between perspective and sketching, promoting the transformation of intangible cultural heritage into contemporary art. His work won the gold medal of "Hundred Flowers Award Award" and was collected by the China Agricultural Museum. The author describes himself as "awakening local memories with the temperature of wheat straw", and his work has become a cultural symbol of rural revitalization.



Figure 8 Chang Aiying's work "The Catcher in the Rye"

Source : Chang Aiying (2025)

3.3 Representative Works and Craftsmanship of Yuan Yueying

Yuan Yueying (born in 1970), from Runan, Henan, is a representative inheritor of provincial-level intangible cultural heritage (Runan wheat straw painting). In 1992, he studied under Professor Xu Yun from the Central Academy of Fine Arts, inheriting and innovating the techniques of three-dimensional dyeing and scraping, enhancing the three-dimensional sense of his works; Color fusion hot dyeing and coloring, creating colorful wheat straw paintings. The work incorporates the "Tianzhong" culture, making straw painting an artistic expression that carries local characteristics.

Yuan Yueying's "Year of the Year" painting (Figure 9) incorporates elements such as plum blossoms and peonies, symbolizing beautiful visions of resilience and prosperity. The color has been repeatedly adjusted and a vintage color tone has been selected. Lantern and persimmon shapes symbolize reunion and auspiciousness. The production took two months and the craftsmanship was complex, especially the color matching of the vase, which embodies the exquisite expression of traditional auspicious culture.



Figure 9 Yuan Yueying's work "Sui Chao Tu"

Source : He Peiwei (2025)

The practice of the three inheritors demonstrates the diverse development ecology of Henan straw painting. They are rooted in different regional cultures, with Nie Yuanzheng inheriting the Yellow River culture, Chang Aiying integrating the Central Plains agricultural culture, and Yuan Yueying following the Chu culture, using differentiated techniques to promote wheat straw painting from tradition to modernity. They not only preserve the authenticity of the craftsmanship, but also innovate and adapt to contemporary needs, providing a model that combines cultural value and social significance for the active inheritance of intangible cultural heritage, and demonstrating the vitality and development potential of traditional craftsmanship in contemporary times.

Conclusion and Discussion

1. Conclusion

This study focuses on the multi-dimensional exploration of the Henan Straw Art Exhibition, aiming to achieve the research goal of inheriting and developing its production technology. Research has found that: (1) the evolution of skills presents a dual track feature of "manual refinement" and "tool assistance" in parallel; (2) The core bottleneck lies in the high cost and talent gap caused by the traditional production mode; (3) Insufficient technological empowerment is the key constraint on standardization and innovation. Specifically, traditional processes rely on manual precision operations, retaining manual temperature but facing efficiency bottlenecks; Although some practitioners have attempted to introduce simple tools to optimize processes, their overall level of integration with modern technology is still low. At present, development is hindered by the drawbacks of traditional models: long manual cycles and high costs; Young practitioners have low willingness due to slow returns; Insufficient empowerment of technologies such as standardization of straw pretreatment and digitization of pattern design hinders innovative expression. At the same time, the limited acceptance of new crafts by the inheritor group and outdated concepts have become obstacles to industrial development.

2. Discussion

This study examines the inheritance of Henan straw painting techniques and reveals their evolution in the fusion of tradition and modernity. Compared to previous literature that focused more on historical tracing or single techniques (China Arts and Crafts Institute, 2022), this study uses empirical data to confirm the effectiveness of the "human-machine collaboration" model in breaking through the bottleneck of large-scale intangible cultural heritage, filling the gap in quantitative research. Traditional handicrafts are exquisite but limited in efficiency. The introduction of laser engraving and temperature controlled branding has improved accuracy and efficiency, providing technical support for the inheritance of diverse artistic styles. The three inheritors form complementary symbiosis: technology leads to solving complex compositions, market-oriented verifies derivative paths, tradition adheres to establishing authentic standards, differentiation maintains ecological diversity of skills, and provides replicable

paradigms for the active inheritance of similar intangible cultural heritage. The contemporary development of straw painting shows that only by respecting tradition and integrating technology and innovation can intangible cultural heritage be revitalized

Recommendations

To promote the inheritance and development of Henan straw painting, it is suggested to strengthen talent cultivation, establish a school enterprise joint training mechanism, add digital intangible cultural heritage courses, incorporate modern technologies such as laser engraving into teaching, and shorten the development cycle. The second is to encourage creative design, establish special funds, promote the experience of derivatives of Nezha, support "technique+digitalization" projects, establish a shared pattern library, and enhance artistic competitiveness. The third is to expand market channels, build a hierarchical marketing matrix of "high-end pure manual+mass human-computer cooperation", use the Internet to strengthen publicity, and explore the international market. The fourth is to promote industrial integration, establish shared intelligent manufacturing centers in production areas, centralize the configuration of laser equipment to reduce the cost of small and micro workshops, and develop integrated cultural and tourism products. Through the above measures, we will promote the creative transformation and innovative development of straw painting, and create a cultural card of the Central Plains.

References

- China Arts and Crafts Institute. (2022). *Ingenuity | He Xingwen: Pucheng wheat-straw painting (I)*. China Arts and Crafts Institute. <https://www.cnacs.net.cn/19/202211/4340.html>. (In Chinese)
- China Intangible Cultural Heritage Network. (2014). *Wheat straw clipping (Qingfeng Nie's wheat straw clipping)*. China Intangible Cultural Heritage Network · China Intangible Cultural Heritage Digital Museum. https://www.ihchina.cn/project_details/14172. (In Chinese)
- Cui, Z., & Wang, Y. (2024). *Wheat-straw collage storyteller: Nie Yuanzheng, representative inheritor of the national intangible heritage project*. Sina Finance. <https://finance.sina.cn/2024-11-23/detail-incwzvx6906626.d.html>. (In Chinese)
- Han, S. (2024). *Chen's wheat straw painting*. Kaifeng Municipal People's Government Website. https://www.kaifeng.gov.cn/kfsmzfz/ssjfy/pc/content/content_1767000389546450944.html. (In Chinese)
- Huang, L. (2020). On the functions of folk art and factors influencing its development: A case study of "tongcao relief" and wheat-straw painting in Puyang, Henan Province. *Art Evaluation*, (22), 186 - 188. (In Chinese)
- Li, H. (2021). *Yuan Yueying: The process of chasing dreams is sweet*. Tianzhong Evening News. https://www.sohu.com/a/455823268_100287944. (In Chinese)

- Li, H. (2025). Ancient skills become fashionable! Anyang wheat straw painting shines in the watchmaking industry. Anyang Daily.
https://www.ayrbs.com/szb/pc/content/202502/14/content_81237.html. (In Chinese)
- Li, Y. (2024). *Inheritance and innovation of Puyang wheat-straw painting*. Today Henan Net.
https://hn.cnr.cn/hnpdgb/whjy/20240906/t20240906_526890172.html. (In Chinese)
- Puyang Civilization Network. (2025). *Nie-style wheat-straw collage selected as the second batch of national "typical cases of intangible-heritage workshops"*.
http://py.wenming.cn/qmyd/202504/t20250417_8884412.html. (In Chinese)
- Wang, X. (2022). *A study on the reproduction of Puyang wheat-straw painting under the background of culture-tourism integration*. 360doc Personal Library.
http://www.360doc.com/content/23/0714/08/20226523_1088489794.shtml. (In Chinese)
- Wu, Y. (2024). Inheritance and innovation of Puyang wheat-straw painting. *Education and Art Development*, 25(2), 81 - 85. (In Chinese)
- Zhang, J. (2015). Wheat-straw painting makes her artistic dream come true. *Jingu Chuanqi. Biographies*, 6, 61 - 62. (In Chinese)
- Zhu, X. (2024). *One "mai" inherits the past: Puyang wheat-straw painting goes global*. Sohu Culture. https://cul.sohu.com/a/774535713_121375869. (In Chinese)
- Koppanen, M., & Lindfors, A. (2025). Fungal attachments: Amadou-making across vernacular crafts and contemporary arts. *Craft Research*, 16(2), 1 - 18.
https://doi.org/10.1386/crre_00157_1.
- Li, H., Xue, T., Zheng, Z., Luo, X., & Huang, G. (2025). The innovation of traditional handicrafts and cultural identity: A multidimensional value analysis using the DEMATEL-ISM method. *PLOS ONE*, 20(5), Article e0322893. <https://doi.org/10.1371/journal.pone.0322893>.
- Yan, W. J., & Li, K. R. (2023). Sustainable cultural innovation practice: Heritage education in universities and creative inheritance of intangible cultural heritage craft. *Sustainability*, 15(2), 1194. <https://doi.org/10.3390/su15021194>.