

Integrating Digital Innovation with Anhui Phoenix Painting Art: A New Era of Cultural Heritage Preservation

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Abstract: Anhui Phoenix Painting Art, a traditional folk painting from Anhui Province, China, has over 600 years of history, originating in the Ming and Qing Dynasties. Known for its vibrant colors and intricate depictions of the phoenix, this art symbolizes prosperity, harmony, and cultural identity. However, today's rapid modernization and globalization pose challenges to its preservation. This research explores the role of digital technologies, such as augmented reality (AR), virtual reality (VR), and 3D modeling, in preserving and promoting Anhui Phoenix Painting Art. Through qualitative research, including ethnographic fieldwork and interviews, this study examines how digital innovations can safeguard this art form, engage younger generations, and ensure its relevance in the modern world. The findings demonstrate that these technologies enhance public accessibility and prevent physical deterioration while offering immersive and interactive experiences for audiences. The research concludes that integrating digital tools with traditional artistry provides a sustainable path for preserving Anhui Phoenix Painting Art while maintaining its cultural and historical authenticity.

Keywords: Anhui Phoenix Painting, Digital Preservation, Augmented Reality, Virtual Reality, Intangible Cultural Heritage.

1. INTRODUCTION

Anhui Phoenix Painting Art is a traditional folk painting with deep roots

in Anhui Province, China, originating during the Ming Dynasty and flourishing throughout the Qing Dynasty. With over 600 years of history, this art form is known for its intricate craftsmanship and symbolic imagery. It is often centered on the phoenix, a revered figure in Chinese mythology representing prosperity, renewal, and harmony (Ding, 2019; Guolong et al., 2022; Yang, 2021). The paintings typically feature vivid colors and detailed designs, showcasing the region's artistic heritage. In 2006, Anhui Phoenix Painting was recognized as one of the first intangible cultural heritage elements of Anhui Province, marking its importance in preserving the area's cultural identity. Beyond being a visual art form, Anhui Phoenix Painting represents a connection between the people of Anhui and their traditions, embodying the region's unique cultural and historical narrative (Lu, 2016; Xu et al., 2018; Yang, 2023; Zhang, 2020). This research seeks to answer the following questions:

- (1) How can digital innovation aid in preserving and promoting Anhui Phoenix Painting?
- (2) What role can emerging technologies such as AR, VR, and 3D modeling play in recontextualizing this traditional art for modern audiences?
- (3) What challenges arise in applying digital tools to preserve cultural heritage, and how can these be mitigated?

Despite its recognition as an intangible cultural heritage, Anhui Phoenix Painting risks fading into obscurity in the modern era. Globalization and technological and cultural shifts have contributed to a decline in the appreciation and practice of traditional art forms (Li, 2024; Watson & Ho, 2007). As younger generations increasingly gravitate toward digital entertainment, the transmission of skills related to Anhui Phoenix Painting is diminishing, creating a gap between the preservation of cultural heritage and the realities of contemporary society (Gu & Laoakka, 2024; Zhou, 2020). The disappearance of skilled artisans and the lack of structured programs to teach the younger population further exacerbate the issue. Therefore, the challenge lies in safeguarding the physical aspects of the paintings and adapting the art form to engage a modern audience, raising the critical question of how to sustain this traditional art in an increasingly digital world (Li, 2021; Yang, 2023). Globally, digital preservation of cultural heritage has evolved, with countries like Australia leading efforts to preserve Indigenous art through digital archives and virtual galleries. Similar initiatives in Africa have focused on preserving traditional textiles using 3D modeling, allowing global audiences to access these heritage elements without risking the physical deterioration of artifacts

(Akinribosun et al., 2024; Nimo, 2022; Vett, 2019; Zhang & Peng, 2024). These international efforts highlight a growing trend toward integrating digital technology in preserving diverse cultural heritages, providing valuable lessons for the digital preservation of Anhui Phoenix Painting. The primary objective of this research is to explore how digital innovation can contribute to preserving and promoting Anhui Phoenix Painting. This study examines the art form's historical origins and cultural significance and analyses its aesthetic characteristics (Chu & Liu, 2024; Han & Li, 2023). The research investigates the potential role emerging technologies such as augmented reality (AR), virtual reality (VR), and 3D modeling can play in recontextualizing Anhui Phoenix Painting for contemporary audiences. The research proposes a new design paradigm that balances preserving traditional artistic techniques with modern-day technological advancements by leveraging digital platforms. This integration aims to make Anhui Phoenix Painting more accessible to younger generations, ensuring its continued relevance and appeal in a rapidly evolving cultural landscape (Hongbin, 2021; Li, 2022; Sullivan, 2023; Wang & Huang, 2024; Yang, 2021). The significance of this research lies in its contribution to broader discussions on cultural preservation in the digital age (Bi, 2024; Qiu et al., 2024; Seekhunlio et al., 2024). As China rolls out its National Cultural Digitalization Strategy, a national effort to integrate digital technology with traditional artistic forms, this research aligns with governmental initiatives to safeguard intangible cultural heritage. Focusing on Anhui Phoenix Painting, the research highlights how traditional art forms can benefit from digital innovation, ensuring they remain relevant and engaging for modern audiences (Gu & Laoakka, 2024; Keane et al., 2018; Keane et al., 2020; Wu, 2017). Furthermore, the study provides insights into how cultural institutions, policymakers, and artists can collaborate to use technology in preserving intangible cultural heritage. The proposed digital innovations offer a preservation method and enhance the interaction between traditional art and global audiences, enabling Anhui Phoenix Painting to thrive in its historical context and the digital future (Chunxia & Shouhui, 2020; Guo & Zhang, 2022; Kolay, 2016; Sugita et al., 2021).

2. METHOD

This study employed a qualitative approach, focusing on ethnographic methods and case studies. Data were collected through in-depth interviews with local artisans, cultural experts, and museum curators specializing in

Anhui Phoenix Painting. A purposive sampling technique was used to select key informants with expertise in traditional art forms and digital innovation. The sample comprised 15 individuals across various fields, including art history, digital design, and intangible cultural heritage preservation. Research instruments included semi-structured interview guides and observational checklists during fieldwork in Anhui Province. The data were analyzed through thematic analysis to identify critical insights on integrating digital technology with traditional art forms.

3. AXIOLOGICAL PERSPECTIVES ON ANHUI PHOENIX PAINTING ART

3.1 Cultural and Historical Value

Anhui Phoenix Painting Art, originating in Anhui Province, holds deep cultural roots, merging agrarian and aristocratic traditions. The art form evolved over centuries, reflecting local values and beliefs tied to prosperity, harmony, and protection. It became well-known during the Ming and Qing Dynasties, and in 2006, Anhui Phoenix Painting was designated as part of Anhui's intangible cultural heritage. The phoenix is central to the art's iconography, often paired with dragons, cranes, and peonies, symbolizing rebirth, longevity, and peace, deeply embedding this art in cultural and spiritual life.



Figure 1: Phoenix Painting "Danfeng Chaoyang"

Figure 1, the Anhui Phoenix Painting features three distinct interpretations of the traditional motif "Danfeng Chaoyang," symbolizing renewal, prosperity, and harmony. Each painting features a phoenix facing the rising sun, symbolizing hope, warmth, and new beginnings. The left painting features a phoenix surrounded by blooming flowers, symbolizing wealth and honor. The center painting uses traditional Chinese red, representing joy, good fortune, and vitality. The right painting presents the

phoenix in a refined style, emphasizing grace and wisdom. These paintings demonstrate the significance of the phoenix as a cultural emblem of renewal, leadership, and moral clarity, central to Anhui Phoenix Painting's role in preserving Chinese cultural heritage. Digital preservation efforts are essential to safeguarding these intricate designs for future generations. The symbolism in these paintings speaks to the cultural messages that the people of Anhui wish to convey through art. The phoenix is seen as a messenger of harmony and moral governance, making it a revered symbol in Chinese society. The dragon, often featured alongside the phoenix, represents power and heaven, while the phoenix is associated with grace, beauty, and the earth, symbolizing balance and prosperity. Each of these motifs reflects the spiritual and cultural identity of the people of Anhui. Anhui Phoenix Painting has served functional and spiritual purposes for over 600 years as a traditional folk art. It was commonly displayed in homes and temples to bring blessings and protection. These paintings' vibrant colors and meticulous detailing embody the region's aesthetic and moral ideals. The presence of the phoenix, often paired with the dragon, shows how vital these symbols were in maintaining the community's cultural fabric.

3.2 Aesthetic Characteristics

The aesthetic qualities of Anhui Phoenix Paintings are distinguished by their symbolic depth and meticulous craftsmanship. The phoenix is portrayed with several distinctive features: a snake's head, a turtle's back, and nine tail feathers, each symbolizing wisdom, protection, and spiritual renewal. These elements create a narrative that transcends mere decoration, making the art form a rich philosophical and spiritual expression medium.



Figure 2: Phoenix Painting "Dragon and Phoenix Presenting Auspiciousness"

Figure 2, a traditional Chinese motif symbolizes harmony and balance between opposing forces. The dragon represents power, strength, and

heaven, while the phoenix represents grace, beauty, and the earth. Together, they represent the union of yin and yang, often associated with prosperity, peace, and marital harmony. The figure features various interpretations of the dragon and phoenix interacting amidst swirling clouds, symbolizing celestial forces. The bottom image combines the dragon and phoenix in a more symmetrical composition, symbolizing auspiciousness and unity. The intricate detailing of feathers and scales in both figures demonstrates the craftsmanship and complexity of Anhui Phoenix Painting. This figure underscores the cultural significance of the dragon and phoenix pairing in Chinese traditions, where they are often featured in celebratory and ceremonial contexts. Digital preservation is essential to maintain artistic and cultural significance for future generations. The combination of bright colors such as red, gold, and blue enhances the visual impact of these paintings, aligning them with traditional Chinese cultural symbolism. Red signifies joy and good fortune, gold represents power and wealth, and blue reflects tranquility and depth. The design elements, including complex patterns and symmetrical compositions, contribute to the highly refined nature of this art form. These elements are carefully chosen to represent auspicious themes, including "Danfeng Chaoyang" (Phoenix Facing the Sun) and "Hundred Birds Paying Homage to the Phoenix," each of which embodies ideals such as virtue, governance, and human prosperity. In the "Danfeng Chaoyang" theme, the phoenix faces the sun, symbolizing renewal and the beginning of a new era. This imagery is tied to ancient Chinese beliefs about the cyclical nature of life and governance, where the sun's rise represents hope, warmth, and moral clarity. Another common theme is "A Hundred Birds Paying Homage to the Phoenix," which depicts the phoenix as the ruler of the birds, surrounded by other birds that symbolize various virtues. This imagery conveys a sense of moral leadership and unity, portraying the phoenix as a symbol of virtuous governance and spiritual guidance.



Figure 3: Phoenix Painting "Hundred Birds Paying Attention to the Phoenix"

Figure 3, a painting by Anhui Phoenix, focuses on leadership, virtue, and moral authority. The phoenix, traditionally the ruler of all birds in Chinese mythology, is depicted as the central figure, surrounded by various birds. This motif symbolizes unity under virtuous governance and is often associated with peace and prosperity. Three interpretations of the painting exist: the left, where blooming trees surround the phoenix; the middle, where the phoenix is perched on a tree; and the right, where the phoenix stands on rocky terrain, symbolizing strength and resilience. Digital preservation is crucial to maintain the detailed representation of these artworks and ensure future generations understand their cultural significance. The craftsmanship required for Anhui Phoenix Painting is highly sophisticated. Each painting is a labor-intensive process that requires a deep understanding of traditional techniques and a mastery of symbolic language. Artists focus not only on the visual representation but also on the cultural significance embedded in every stroke and pattern. These paintings do not merely serve an aesthetic function; they are a medium through which cultural narratives are communicated and preserved. The intricate designs and vibrant color palettes elevate these paintings beyond decorative objects, positioning them as important cultural artifacts. As a result, Anhui Phoenix Painting continues to hold a significant place in the art world and in preserving cultural identity. In the digital age, the continued relevance of these artworks depends on the successful integration of new technologies with traditional techniques, ensuring that the cultural and historical value of Anhui Phoenix Painting is preserved and shared with future generations.

4. THE ROLE OF DIGITAL INNOVATION IN CULTURAL PRESERVATION

4.1 Digital Transformation of Intangible Heritage

Digital technology has significantly transformed the preservation and promotion of intangible cultural heritage, with Anhui Phoenix Painting as a prime example. Traditional preservation methods of folk art often faced challenges, such as physical degradation over time and limited accessibility. However, with digital innovations like augmented reality (AR) and virtual reality (VR), cultural heritage institutions now have the tools to safeguard these precious traditions and make them more accessible to a global audience. By digitizing Anhui Phoenix Painting, institutions can preserve these artworks in high-resolution formats and provide interactive

experiences for users. AR and VR technologies enable virtual tours of exhibitions, allowing people from all over the world to view and appreciate the intricate details of these paintings from the comfort of their homes. This digital transformation of intangible heritage ensures that the cultural significance of Anhui Phoenix Painting is not lost to future generations while simultaneously expanding its reach beyond regional boundaries. While AR and VR provide immersive experiences, they face technical challenges like maintaining resolution fidelity and color accuracy, especially in artworks as intricate as Anhui Phoenix Painting. Specialized software like Adobe Substance for texture mapping and Unity for VR simulation allows detailed archiving. Still, it also demands high computational power and storage capacity, presenting logistical and financial challenges.



Figure 4: Extraction of Phoenix, the Core Element of the Work

Figure 4 depicts the extraction and centralization of the phoenix as the core element in Anhui Phoenix Painting, highlighting its symbolic importance in Chinese culture. The top row features three different versions of the phoenix in lush natural settings. At the same time, the bottom section isolates it from its surrounding elements, allowing for a

more precise analysis of intricate details like tail feathers, posture, and vibrant color patterns. This process is crucial for digital preservation efforts, allowing artists, researchers, and audiences to study the phoenix's core symbolism and ensure its essence is preserved for future generations. Digital preservation also allows for the detailed archiving of works, which can be helpful for academic research and educational purposes. By digitizing elements such as the unique phoenix patterns, auspicious symbols, and vibrant colors used in the paintings, these works can be studied in great detail without risking damage to the originals. Additionally, this technology enables institutions to present these works innovatively, combining traditional craftsmanship with modern digital mediums, thereby bridging the gap between the old and the new.

4.2 Innovative Design Paradigm

The digital transformation of Anhui Phoenix Painting has also introduced new opportunities for creative innovation. By integrating 3D modeling and other digital techniques, artists and designers can explore new ways to present traditional art forms. These innovations help preserve the original works' authenticity and reimagine them in ways that resonate with contemporary audiences. For instance, virtual exhibitions can provide viewers with close-up views of the phoenix's detailed features, allowing for an immersive experience that would be difficult to achieve in a physical gallery.



Figure 5: Color Value of the Work

Figure 5 shows the Anhui Phoenix Painting using color values to represent growth, vitality, harmony, depth, and prosperity. The green value symbolizes growth, the blue represents depth, and the red represents joy and prosperity. The bottom red focuses on the phoenix's feathers, symbolizing renewal and auspiciousness. This analysis is crucial for digital

preservation, ensuring accurate representation of colors and preserving the aesthetic quality and cultural richness of the artwork. This new era of digital design has created a platform where tradition meets innovation. By combining 3D modeling and interactive interfaces, artists can now present the intricate designs of Anhui Phoenix Painting in ways that captivate modern audiences. For example, viewers can explore the various elements of the paintings, such as the phoenix's snakehead or turtle back, through virtual simulations that offer detailed, zoomed-in perspectives. This method of digital engagement not only preserves cultural heritage but also revitalizes it, making it relevant to the digital age. Moreover, this innovative approach opens avenues for creative reinterpretation of traditional elements. Artists can experiment with new color schemes and modernized patterns and even combine various art forms to create a fusion of old and new. Such creative exploration is essential for keeping traditional art forms like Anhui Phoenix Painting alive in an era when technology is increasingly dominant in everyday life.



Figure 6: Organizing Auxiliary Elements of Works

Figure 6 demonstrates the use of auxiliary elements in Anhui Phoenix Painting, emphasizing the significance of symbolic motifs. Symbols like pine trees, peonies, and plum blossoms represent longevity, wealth, and resilience. Sunrise, auspicious clouds, and flying birds symbolize new beginnings and freedom. The lotus leaf, butterfly, and Ruyi pattern symbolize purity and transformation. Their careful organization creates a more profound cultural context. This digital innovation serves as a model for the future of cultural preservation. As digital technologies advance, they will play an even more significant role in preserving and disseminating

intangible cultural heritage. Through these efforts, traditional art forms like Anhui Phoenix Painting can be maintained and continue to evolve and thrive in a digital world, ensuring they remain relevant and appreciated for generations. Integrating these digital techniques into the preservation process highlights the potential for a seamless blend of tradition and innovation. As such, the digital transformation of Anhui Phoenix Painting not only enhances the preservation of the art form and provides a blueprint for how other intangible cultural heritages can be preserved and promoted in the digital age.

5. CASE STUDIES: DIGITAL INNOVATION IN ANHUI PHOENIX PAINTING

The integration of digital technologies into traditional art forms has revolutionized cultural preservation efforts, particularly in the case of Anhui Phoenix Painting. Several initiatives have emerged that protect the integrity of these historical artworks and create new ways for audiences to engage with them. By focusing on digital innovation, these projects demonstrate how modern technology can bridge the past and future, ensuring the longevity of intangible cultural heritage while making it more accessible to diverse global audiences.

5.1 3D Archive Creation

One of the most significant advancements comes from a collaboration between the Anhui Phoenix Painting Research Institute and a group of digital artists. Together, they developed a 3D archive of phoenix patterns, an extensive digital repository that allows scholars and the public to study and appreciate the intricacies of these cultural designs. This initiative is significant for two reasons: preservation and accessibility. Firstly, creating a 3D digital archive mitigates the risk of physical deterioration. Traditional artworks are vulnerable to the passage of time, and factors like humidity, light exposure, and general handling can degrade their quality. Transferring these pieces into a digital format allows the artwork to be preserved indefinitely without fear of physical damage. This transformation into a digital medium ensures that future generations will have the opportunity to experience Anhui Phoenix Paintings in their original glory, no matter how much time passes. Secondly, the 3D archive increases accessibility. Traditional artworks, especially those considered part of national heritage, are often housed in specific institutions or museums, limiting the ability of the global public to engage with them. By digitizing these artworks and

making them available online, this initiative allows an international audience to access and study Anhui Phoenix Painting. For academics, this represents an invaluable resource for research. It gives the general public an immersive opportunity to appreciate cultural heritage from a distance. This approach democratizes access to heritage, breaking down geographic and logistical barriers that once limited cultural engagement.

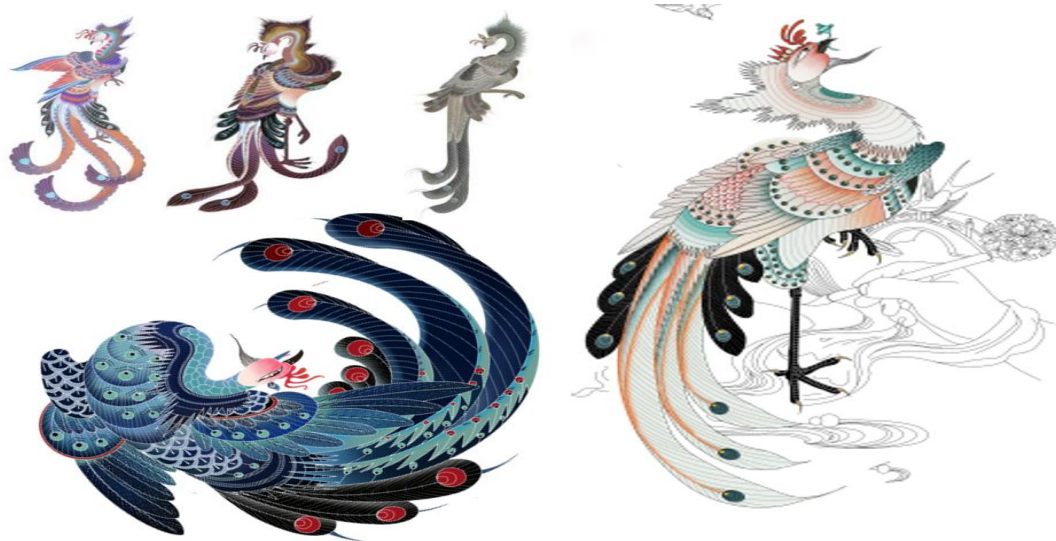


Figure 7: Phoenix Element Central Graphic Arrangement

Figure 7 displays different graphic arrangements of the Phoenix Element, showcasing different stages of artistic development in Anhui Phoenix Painting. The simplified sketches represent early stages, while the intricate patterns and colors in the bottom-left phoenix highlight mythological power. The proper phoenix showcases a refined form with detailed linework and vibrant colors. This figure emphasizes the importance of digital tools in preserving and exploring artistic development.

5.2 VR-Based Interactive Exhibitions

Another powerful example of digital innovation in preserving Anhui Phoenix Painting is an interactive digital exhibition in Hefei. This exhibition utilized Virtual Reality (VR) technology to create an immersive, phoenix-themed art gallery. Unlike traditional museum settings, where viewers passively observe artwork, VR introduces a new level of interactivity and engagement. Visitors to this exhibition could virtually walk through a gallery, interact with the paintings, and explore the cultural and aesthetic dimensions of the phoenix-themed artworks in a more immersive environment. The advantage of VR technology is that it allows viewers to experience traditional art in previously impossible ways. Instead of being confined to two-dimensional representations in a gallery space, VR offers

dynamic interaction, such as zooming into the fine details of phoenix motifs or even seeing animated recreations of these patterns. This heightened level of engagement makes the experience more entertaining and educational, enabling viewers to understand the depth and complexity of the art form on a more intimate level. Additionally, virtual exhibitions like this allow for much greater flexibility and reach. Unlike physical exhibitions, which are bound by time and location, a VR exhibition can be experienced anywhere in the world. This flexibility is critical for expanding the reach of Anhui Phoenix Painting beyond its traditional geographic and cultural boundaries, exposing new audiences to this rich art form.

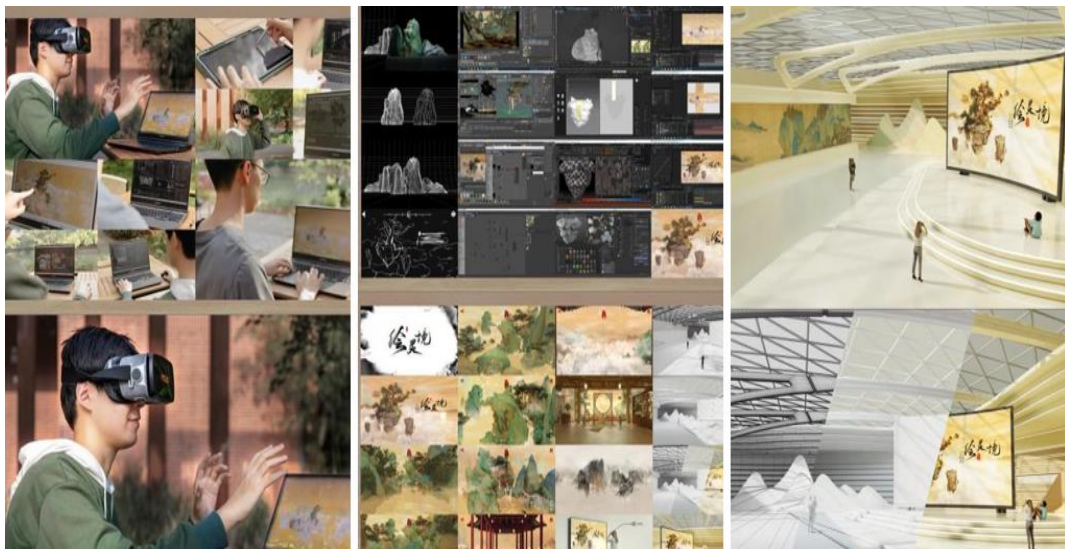


Figure 8: "Huiling Realm" VR interactive Display

Figure 8, VR Interactive Display uses virtual reality to immerse audiences in traditional Chinese art forms, such as Anhui Phoenix Painting. Users wear VR headsets to explore digital renderings of the paintings, allowing them to experience them from multiple perspectives. The display showcases the potential of VR to engage modern audiences with traditional art forms and how digital tools can preserve and promote cultural heritage through immersive experiences.

5.3 Impact and Significance of Digital Innovation

Digital innovation is crucial in preserving traditional art forms like Anhui Phoenix Painting, which could face obscurity or extinction due to fewer people accessing them and deteriorating physical artworks. By integrating digital tools like 3D archiving and VR, cultural institutions preserve these treasures and make them relevant to contemporary audiences. These technologies also transform cultural heritage consumption, encouraging more profound engagement with the art. This is especially important for

younger generations who may not have had direct exposure to these art forms. Digital archives and VR exhibitions also offer valuable learning tools for schools, universities, and other academic institutions, allowing students to engage with cultural heritage in a way that complements traditional methods.

5.4 Global Comparisons in Digital Preservation

Digital preservation efforts for Anhui Phoenix Painting can be contextualized alongside global examples, such as preserving Indigenous Australian rock art through 3D modeling and African textiles through digital pattern archives. These projects highlight how different regions leverage digital technology to safeguard their heritage. Such comparisons provide valuable insights into best practices that could inform future developments in China's digital cultural preservation strategies.

5.5 Challenges and Limitations of Digital Preservation

Despite the benefits, digital preservation also faces significant challenges. The digital divide limits access to AR and VR experiences in rural or underdeveloped areas. Furthermore, rapid technological advances risk rendering digital archives obsolete unless consistent updates and migrations are undertaken. There's also the risk of cultural commodification, where digitizing sacred or traditional symbols for online or commercial platforms could reduce their cultural significance. These challenges must be addressed to maintain the integrity and sustainability of digital preservation efforts.

6. DISCUSSION

Digital technologies have opened up new possibilities for preserving and promoting Anhui Phoenix Painting. However, as this traditional art form transitions into the digital age, it is essential to maintain a balance between innovation and the preservation of cultural integrity. Digital interventions, such as 3D archiving, virtual reality (VR), and augmented reality (AR), offer valuable tools to enhance the appreciation of Anhui Phoenix Painting. Yet, artists and cultural institutions must ensure that these tools complement rather than replace the historical and cultural significance of the art form. Anhui Phoenix Painting has long been prominent in Chinese cultural heritage and is known for its deep symbolism and meticulous craftsmanship. With the rapid development of digital platforms, the art form can now reach wider audiences, ensuring its continued relevance in

contemporary society. Digital tools provide a way to preserve art and an avenue for reinterpretation and modern engagement, allowing audiences to experience this traditional art in innovative ways.

6.1 Technological Innovations and Cultural Integrity

The challenge lies in using these technologies responsibly, ensuring they do not dilute the traditional essence of Anhui Phoenix Painting. While innovation is essential for preserving cultural heritage in the modern era, the digital medium must not overshadow the artwork's historical significance. This balance can be achieved through thoughtful collaborations between artists, cultural institutions, and technology developers. These collaborations should aim to protect the integrity of the traditional art form while offering new perspectives and enhancing its accessibility.

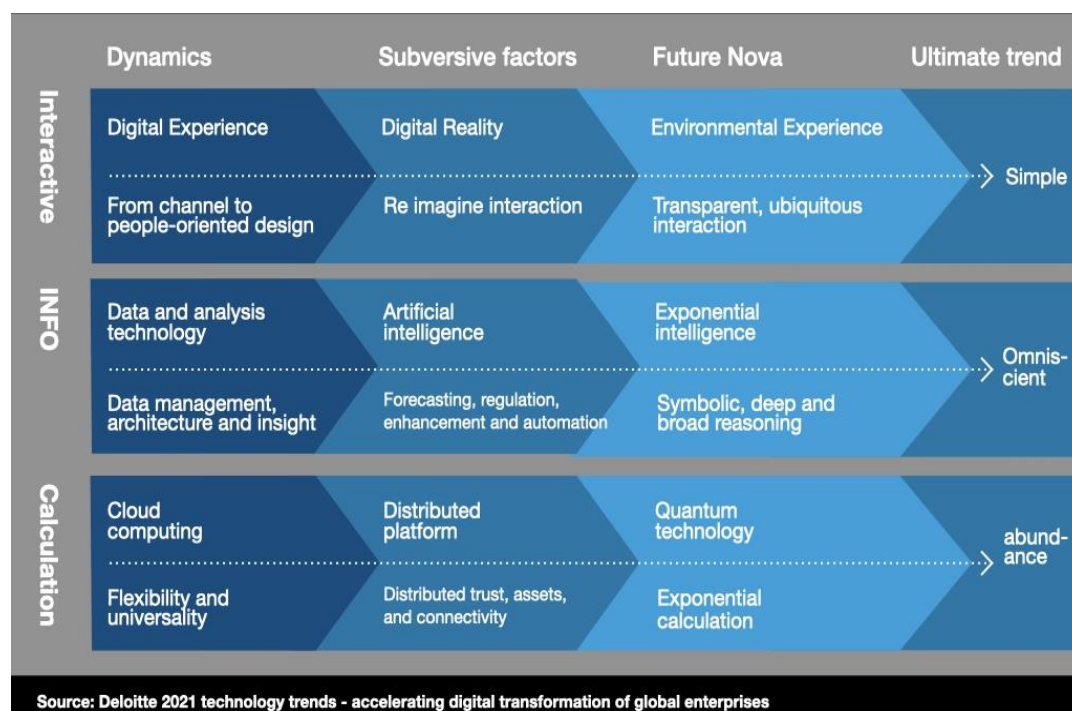


Figure 9: National Digital Transformation Table

Figure 9 shows that national digital transformation strategies are pivotal in this process. These strategies emphasize the importance of integrating digital technologies into cultural preservation while maintaining the authenticity of traditional art forms. For example, the Chinese government has introduced policies encouraging digitizing intangible cultural heritage, including Anhui Phoenix Painting, to ensure long-term preservation. Institutional collaborations between cultural institutions, such as museums and galleries and technology companies, have facilitated the digitization of traditional artworks, making them accessible to local and global audiences.

6.2 Case Studies of Digital Innovation

Several successful case studies highlight how digital technologies can be integrated with Anhui Phoenix Painting without compromising its traditional value. One such example is the creation of a 3D archive of phoenix patterns by the Anhui Phoenix Painting Research Institute in collaboration with digital artists. This archive serves as an invaluable resource for scholars and the public, allowing them to study and appreciate the intricate designs of the phoenix in great detail. This digital collection offers a new dimension to art appreciation, where viewers can examine the patterns closely, interact with them, and even share them across digital platforms. In another case, an interactive digital exhibition in Hefei used VR technology to offer visitors an immersive experience of a phoenix-themed art gallery. This project combined digital storytelling with traditional art, allowing visitors to explore and engage with the paintings dynamically and innovatively. These case studies underscore the importance of digital innovation in preserving and promoting Anhui Phoenix Painting for future generations. By leveraging these technologies, cultural institutions can provide educational and entertainment value, ensuring the art form remains relevant in the digital age.

6.3 Innovative Reinterpretations and Accessibility

One of the most significant benefits of digital technologies is their ability to make traditional art more accessible. For instance, VR and AR platforms can bring Anhui Phoenix Painting to audiences who may not have the opportunity to visit physical exhibitions. Digital tools also provide a platform for innovative reinterpretations, where traditional motifs and symbols can be reimagined in new and exciting ways, resonating with contemporary audiences.

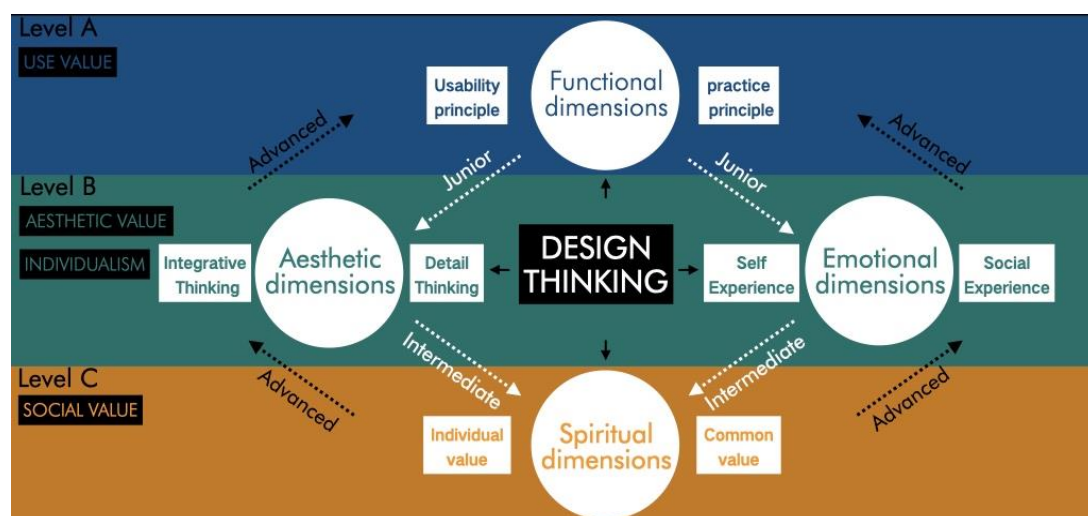


Figure 10: Digital Innovation Design Model based on "FRIZ" Theory

Figure 10, the "Digital Innovation Design Model" based on the "FRIZ" theory, offers a structured approach to integrating digital innovation with traditional art forms. The model emphasizes flexibility, reinterpretation, and innovation, ensuring that while the art form evolves, it remains rooted in its cultural context. For Anhui Phoenix Painting, artists can explore new ways of representing the phoenix and other traditional symbols, using digital tools to enhance the narrative without losing the original meaning. For example, digital tools allow artists to experiment with different color palettes, textures, and forms, providing new interpretations of traditional art. These innovative approaches can attract younger generations, who are more accustomed to engaging with digital content. By presenting Anhui Phoenix Painting in formats that appeal to contemporary tastes, cultural institutions can ensure that this traditional art form remains relevant in a rapidly changing world.

6.4 Future Prospects for Digital Preservation

The future of Anhui Phoenix Painting in the digital era is promising, but it requires careful planning and collaboration between all stakeholders involved. Digital innovations should be viewed as tools to enhance, not replace, the traditional elements of the art form. By striking a balance between preserving the cultural integrity of Anhui Phoenix Painting and embracing the possibilities offered by digital platforms, artists and institutions can ensure the art's longevity. The discussion highlighted in Figure 9 and Figure 10 demonstrates the potential for digital platforms to revolutionize how traditional art is preserved and appreciated. National policies and innovative design models serve as frameworks to guide this transition, offering a roadmap for future projects that seek to combine traditional artistry with cutting-edge technology. By embracing these developments, Anhui Phoenix Painting can continue to evolve while staying true to its cultural roots.

6.5 Sustainability of Digital Innovations

Sustainability is critical in ensuring that digital innovations continue preserving Anhui Phoenix Painting for future generations. Solutions like cloud-based storage systems and ongoing partnerships with tech companies will be crucial to maintaining accessibility and updating archives as technology advances. Furthermore, strategies to reduce the environmental impact of high-energy servers must be considered, with a shift towards more sustainable data management practices.

7. CONCLUSION

Preserving Anhui Phoenix Painting through digital innovation marks a significant stride in safeguarding China's intangible cultural heritage. By integrating traditional aesthetics with modern technologies such as augmented reality (AR), virtual reality (VR), and 3D modeling, cultural institutions can ensure the longevity of this art form for future generations. These digital tools facilitate the conservation of Anhui Phoenix Painting and open new avenues for interpretation and creative collaboration, allowing the art to continue inspiring and educating people worldwide. This article explored the historical significance, artistic merit, and evolving cultural values associated with Anhui Phoenix Painting Art from an axiological perspective. This art form, rich in symbolism and deeply rooted in Chinese culture, embodies aesthetic and moral values that have been cherished for centuries. By examining its evolution and challenges in the modern era, it becomes evident that blending tradition with innovation is essential for its survival and continued relevance. Digital technologies offer unprecedented opportunities to reimagine and disseminate Anhui Phoenix Painting.

For instance, AR and VR can create immersive experiences, allowing audiences to interact with the artwork in ways that deepen their understanding and appreciation. 3D modeling can capture intricate details of the phoenix motifs, preserving them in digital formats that are accessible globally. These technologies also encourage interdisciplinary collaborations between artists, technologists, and cultural institutions, fostering innovative reinterpretations that resonate with contemporary audiences. This report provides a comprehensive framework for preserving Anhui Phoenix Painting Art by addressing the technical challenges, drawing lessons from global digital preservation efforts, acknowledging limitations, and focusing on the sustainability of digital platforms. These considerations ensure the survival of this invaluable cultural heritage and its continued relevance and accessibility in an increasingly digital world. By embracing digital innovation, Anhui Phoenix Painting can thrive locally and globally. This approach ensures that while the art form adapts to the changing cultural landscape, it retains its historical essence and artistic integrity. The fusion of traditional artistry with modern technology is a testament to the enduring power of cultural heritage in the digital age. It highlights the importance of preserving intangible cultural assets as relics of the past and living traditions that continue to evolve and inspire.

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