Available Online at www.e-iph.co.uk
Indexed in Clarivate Analytics WoS

E-B Environment - Behaviour Proceedings Journal

AcE-Bs2025Bangkok

e-IPH e-International Publishing House Ltd., United Kingdom

https://www.amerabra.org/
13th ASIAN Conference on Environment-Behaviour Studies
Al Meroz Hotel, Bangkok, Thailand, 04-06 Apr 2025

Micromaterials in Chinese Line Drawing: Balancing tradition and innovation for artistic evolution

Yang Yawen[1], Valerie Michael[2*], Shahriman Zainal Abidin[1], Jinge Luo[3]

[1] College of Creative Arts, Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia
[2] College of Creative Arts, Universiti Teknologi MARA (UiTM), Cawangan Sarawak, Malaysia
[3] Design and Art Institute, Hunan University Of Technology and Business(HUTB), Changsha, China

2021174307@student.uitm.edu.my, valeriemichael@uitm.edu.my, shahriman.z.a@uitm.edu.my, ljgwxf@foxmail.com
Tel: 008615573172222

Abstract
This paper explores integrating micro materials into Chinese line drawing to enhance decorative qualities and address modern challenges like cultural disinterest and material degradation. Using a mixed-methods with data from 613 respondents and 20 professionals, the paper identifies key decorative elements and assesses micro materials' impact on design and conservation. Findings show that understanding micro materials and artistic preferences significantly influences integration challenges and success perceptions. While micro materials offer creative and conservation benefits, their adoption must balance innovation with tradition. Recommendations include artist experimentation, respect for cultural authenticity, and institutional support.

Keywords: Chinese Line Drawing; Conservation; Innovation; Micromaterial

DOI: https://doi.org/10.21834/e-bpj.v10i32.6837

1.0 Introduction

1.1 Background

Chinese line drawing, a profound art form deeply rooted in Chinese culture, has long been a medium for expressing philosophical ideas and aesthetic sensibilities. Stemming from Taoist and Confucian philosophies, it emphasizes simplicity, harmony, and spiritual depth, using lines as a primary means of expression. However, this traditional art form faces numerous challenges in the modern era. Cultural disinterest, especially among younger generations, threatens its continuity. Global artistic trends tend to overshadow traditional forms, and the degradation of traditional materials, such as rice paper and natural ink, further complicates its preservation. Integrating micromaterials into Chinese line drawing is a potential solution to these challenges. Micromaterials with their unique image and material properties, such as enhanced durability, flexibility, and possibilities for artistic expression, demonstrate unique advantages in many fields. This paper explores how micromaterials can be incorporated into Chinese line drawing to enhance its decorative aspects, preserve its cultural essence, and expand its artistic boundaries.

1.2 Research Objectives

eISSN: 2398-4287 © 2025. The Authors. Published for AMER by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer–review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers).
DOI: https://doi.org/10.21834/e-bpj.v10i32.6837

This paper aims to identify and analyze the key decorative elements that define Chinese line drawing, evaluate the influence of micromaterials on its decorative and design aspects, and establish the role of micromaterial images in conserving Chinese line drawing, ultimately proposing effective conservation strategies.

This paper holds significant value in both academic and practical domains. Academically, it enriches understanding of the intersection between traditional art forms and modern material science (Abidin et al., 2011). It contributes to the ongoing discourse on how traditional aesthetics can be preserved and innovated in the face of technological advancements. The findings can provide artists, designers, and conservationists with new techniques and materials. This can help create more durable and visually appealing artworks while also promoting the cultural heritage of Chinese line drawing in the contemporary art scene.

2.0 Literature Review

2.1 Decorative Practices in Chinese Line Drawing

Chinese line drawing, originating in ancient times, has evolved through various dynasties (Jiazhou et al., 2022). During the Warring States period, the "Royal Dragon Map" highlighted early line usage for shape articulation. In the Wei and Jin dynasties, Gu Kaizhi's "Spring Silkworm Twisted Silk" style enhanced line dynamism, influencing future works like The Female History Phase and Luo Shen Fu Tu. The Sui and Tang dynasties saw further innovation, with Wu Daozi's emotive lines capturing movement and spirit, as exemplified in King of Heaven. Li Gonglin, in the Song dynasty, perfected the "white trail" technique, emphasizing lines as independent expressions of charm and rhythm (Chu, 2023; Kuo, 2023; Wang, 2023).

2.2 Evolution of Chinese Line Drawing

Chinese line drawing has a long and rich history, dating back to ancient times. It has evolved through different dynasties, with each period contributing to its development (Guo, 2023). During the Warring States period, the "Royal Dragon Map" demonstrated the early use of lines for shape articulation. In the Wei and Jin dynasties, artists like Gu Kaizhi brought the art form to new heights with his "Spring Silkworm Twisted Silk" style, which enhanced the dynamism and fluidity of line work. His masterpieces, such as The Female History Phase and Luo Shen Fu Tu, laid the foundation for character depictions through line drawing. The Sui and Tang dynasties witnessed further innovation, with Wu Daozi's smooth and emotive lines that captured movement and spirit. His work, King of Heaven, set a new standard, where the line became a medium for expressing form, emotion, and spiritual depth. In the Song dynasty, Li Gonglin perfected the "white trail" technique, allowing lines to stand independently to express charm and rhythm. As Chinese line drawing has developed to the present, more scholars have begun to explore the application of virtual reality technology in line expression, providing new references for the digital transformation of traditional art (Cheng et al., 2023).

2.3 Theoretical Foundations

2.3.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (Chuttur, 2009; Davis et al., 2024; Marangunić & Granić, 2015; Zollo et al., 2022) focuses on how perceived usefulness and ease of use influence the acceptance of new technologies. In the context of integrating micromaterials into Chinese line drawing:

Perceived Usefulness (PU): Artists' willingness to adopt micromaterials is influenced by perceived benefits such as improved durability, enhanced color vibrancy, and new creative possibilities.

Perceived Ease of Use (PEOU): Artists are more likely to adopt micromaterials if they believe they are easy to use and do not require a steep learning curve. Integration is more likely to occur if micromaterials can be easily integrated into existing artistic processes.

Attitude Toward Use: Influenced by PU and PEOU, a positive attitude increases the likelihood of adopting micromaterials.

2.3.2 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (Ajzen, 1991, 2011; Wang & Chen, 2024) suggests that individual behavior is determined by behavioral intention, which is influenced by three factors: attitude toward the behavior, subjective norms, and perceived behavioral control. In the context of integrating micromaterials into Chinese line drawing:

Attitude: Artists' views on micromaterials are shaped by perceived benefits (e.g., enhanced durability and new aesthetic possibilities) and concerns about cultural authenticity. Some artists see micromaterials as a way to extend the lifespan of artworks, while others worry they might disrupt the traditional connection between the artist, materials, and the spiritual essence of the art.

Subjective Norms: Opinions of respected artists, critics, and cultural institutions in the art community significantly influence whether micromaterials are deemed acceptable. Support from influential figures encourages adoption, while resistance can deter artists from trying new materials.

Perceived Behavioral Control: Artists' confidence in using micromaterials is influenced by access to resources, technical knowledge, and prior experience. With proper training and resources, artists are more likely to integrate micromaterials into their work.

2.3.3 Innovation Diffusion Theory (IDT)

Innovation Diffusion Theory (Wani & Ali, 2015; Wonglimpiyarat & Yuberk, 2005) explains how new ideas, technologies, or practices spread within a social system. It identifies five attributes that influence the adoption of innovations: relative advantage, compatibility, complexity, trialability, and observability (Hidayat & Mukminin, 2022).

3.0 Research Methodology

3.1 Research Design

This paper adopts a mixed-methods which combining qualitative and quantitative research methods,and is structured in three main stages. The first stage involves data collection and literature review. Relevant information on Chinese line drawing and micromaterials is gathered from various sources, including academic literature, interviews, and observations. The second stage focuses on data analysis, where both qualitative and quantitative data are analyzed using appropriate techniques. In the third stage, the findings are synthesized to develop strategies for the innovative integration of Chinese line drawing and micromaterials.

3.2 Data Collection

3.2.1 Population and Sampling

The population for this paper consists of professionals involved in Chinese line drawing, micromaterial art, and conservation techniques. This includes designers, artists, conservation experts, art historians, and practitioners from museums and galleries. A purposive sampling technique is used to select participants who have expertise in the relevant fields. This ensures that the data collected is directly relevant to the research objectives.

3.2.2 Data Collection Methods

The mixed methods are employed, including observations of artists at work, noting down the techniques and materials used, and a comprehensive literature review to gather historical and contemporary perspectives. For the research objective of determining the role of micromaterial images in the conservation of Chinese line drawing, semi-structured interviews with designers and artists, as well as focus group discussions with conservation experts, are conducted. Questionnaire surveys are distributed online to designers and practitioners in the field to validate guidelines for micromaterial image conservation in Chinese line drawing. The survey data is analyzed using SPSS.

3.3 Data Analysis

Quantitative data analysis starts with data cleaning to address issues like incomplete responses and duplicates. Data is then categorized based on key variables. Descriptive statistics, correlation analysis, and regression analysis are conducted to evaluate the measurement model, examine relationships between variables, and validate hypotheses. On the other hand, Qualitative data from interviews is analyzed using thematic analysis with NVivo to identify key themes. Open coding is performed on the interview texts. Subsequently, the codes are merged through discussion to form consensus themes. Member checking is carried out on the qualitative data. The preliminary analysis results are returned to 5 of the interviewees for confirmation to correct any representational biases.

3.4 Limitation

The samples are mainly from professionals and art enthusiasts, so it may not comprehensively reflect the views of the general audience on the integration of micro - materials into Chinese line-drawing art. In addition, artistic practice is a dynamic process, and the theoretical framework adopted in the research may, to some extent, lack adaptability to such dynamic changes.

4.0 Data Analysis and Interpretation

4.1 Demographic Profile and Variables

After data cleaning, 593 valid responses were obtained. The sample showed a higher proportion of female respondents (58.69%) compared to male respondents (41.31%). The majority of respondents (75.80%) were aged between 15 and 25 years, indicating a predominantly younger population. In terms of education level, 80.95% of respondents had completed undergraduate studies, with a smaller proportion having a high school education (7.59%) or a master's degree and above (11.46%). The growth environment of the respondents was fairly balanced, with 33.73% from cities, 32.37% from towns, and 31.36% from rural areas. 4 independent variables (IVs) and 2 dependent variables (DVs) are adopted as below:

IV1 (UMM): Understanding of Micromaterials, refers to respondents' knowledge and awareness of micromaterials and their potential use in art.

IV2 (INT): Interest in Fusion Innovation, measures the respondents' interest in combining traditional Chinese line drawing with micromaterials.

IV3 (DEM) : Demography,refers to the location of respondents, which could be urban, suburban, or rural.

IV4 (ART): Artistic Preferences include preferences for composition styles, ink types, and paper types used in Chinese line drawing.

DV1 (CHAL): Perception of Fusion Challenges, which explores how participants view the challenges of integrating micromaterials with traditional art forms.
DV2 (SUC): Perception of Fusion Success, which examines respondents' outlook on the potential success or failure of incorporating micromaterials into Chinese line drawing.

4.2 Quantitative Analysis

4.2.1 Correlation Analysis
The correlation analysis revealed that Understanding of Micromaterials (UMM) had a moderate positive correlation with both Perception of Fusion Challenges (CHA) (r = 0.432) and Perception of Fusion Success (SUC) (r = 0.460). This indicates that as respondents' understanding of micromaterials increases, they are more likely to perceive the fusion process's challenges and potential success positively. Interest in Fusion Innovation (INT) demonstrated a moderate positive correlation with Perception of Fusion Success (r = 0.290), although its correlation with Perception of Fusion Challenges was weaker (r = 0.245). This suggests that participants more interested in fusion innovation tend to view the success of fusion more positively than the challenges. Demography (DEM) had a relatively weak correlation with both Perception of Fusion Challenges (r = 0.129) and Perception of Fusion Success (r = 0.175), indicating that demographic background has a limited impact on how respondents perceive the challenges and success of fusion. Artistic Preference (ART) showed moderate correlations with both dependent variables: Perception of Fusion Challenges (r = 0.278) and Perception of Fusion Success (r = 0.266). This implies that respondents' artistic preferences have a small influence on their perception of both the challenges and the potential success of integrating micromaterials into traditional Chinese line drawing.

Table 1: Simple Correlation Matrix for all Variables

Variables	UMM	INT	DEM	ART	CHAL	SUC
UMM	1					
INT	0.301	1				
DEM	0.276	0.290	1			
ART	0.240	0.320	0.271	1		
CHAL	0.432	0.245	0.129	0.278	1	
SUC	0.460	0.290	0.175	0.266	0.612	1

4.2.2 Regression Analysis
Two separate regression models were developed.
For CHAL, the regression analysis showed that Understanding of Micromaterials (UMM) had a significant positive effect (β = 0.295, p < 0.001), indicating that a higher understanding of micromaterials leads to a greater perception of the challenges involved in integrating these materials with traditional art forms. Artistic Preference (ART) also had a significant influence (β = 0.224, p < 0.001), suggesting that individuals with stronger artistic preferences are more likely to perceive challenges in the fusion process. However, Interest in Fusion Innovation (INT) (β = 0.065, p = 0.202) and Demography (DEM) (β = 0.068, p = 0.124) did not significantly predict the Perception of Fusion Challenges, meaning these two hypotheses were rejected due to lack of statistical significance.

Table 2: Regression Results for CHAL (Perception of Fusion Challenges)

Relationship	β	S.D	t-value	P-values	LL	UL	Decision
UMM → CHAL	0.295	0.042	7.024	< 0.001	0.21	0.38	Supported
INT → CHAL	0.065	0.051	1.276	0.202	-0.034	0.163	Not
DEM → CHAL	0.068	0.044	1.545	0.124	-0.02	0.157	Not
ART → CHAL	0.224	0.037	6.054	< 0.001	0.151	0.297	Supported

For SUC, Understanding of Micromaterials (UMM) had the strongest effect (β = 0.315, p < 0.001), demonstrating that greater knowledge of micromaterials significantly improves respondents' perception of successful integration. Artistic Preference (ART) also significantly predicted Perception of Fusion Success (β = 0.245, p < 0.001), indicating that respondents' artistic inclinations play a crucial role in shaping their views on the fusion's success. Demography (DEM) had a weaker, though statistically significant, effect (β = 0.099, p = 0.016), suggesting that demographic factors contribute to perceptions of fusion success, albeit less strongly than understanding or preferences. Interest in Fusion Innovation (INT), however, did not significantly predict Perception of Fusion Success (β = 0.128, p = 0.082), as its p-value exceeded the 0.05 threshold, thus not reaching statistical significance.

Table 3: Regression Results for SUC (Perception of Fusion Success)

Relationship	β	S.D	t-value	P-values	LL	UL	Decision
UMM → SUC	0.315	0.039	8.081	< 0.001	0.239	0.391	Supported
INT → SUC	0.128	0.043	2.974	0.082	-0.016	0.22	Not
DEM → SUC	0.099	0.041	2.414	0.016	0.019	0.179	Supported
ART → SUC	0.245	0.038	6.476	< 0.001	0.17	0.32	Supported

4.3 Qualitative Analysis
Six main themes emerged from the semi-structured interviews:

The theme of Tradition versus Innovation highlighted the tension between preserving the cultural and historical integrity of Chinese line drawing and embracing modern materials like micromaterials. Some participants, especially traditionalists, emphasized the importance of maintaining traditional techniques, while others, particularly younger and experimental artists, saw micromaterials as a way to breathe new life into the ancient form.

Creative Freedom and Artistic Experimentation focused on the potential of micromaterials to unlock new avenues of expression within Chinese line drawing. However, there were concerns that such experimentation requires a deep understanding of both traditional methods and new materials to avoid superficial or poorly executed fusions.

Perceived Technical Challenges centered around the difficulty of integrating micromaterials with traditional brush techniques. Traditionalists were more concerned about the potential degradation of artistic quality due to the lack of proper training, while younger artists were more optimistic, seeing these challenges as opportunities to learn new skills.

Marketability and Audience Reception explored how the integration of micromaterials might affect the marketability of Chinese line drawings. Some believed it could attract a younger, more tech-savvy audience, while others worried about alienating the traditional audience.

Cultural preservation was a critical theme, with participants discussing the need to balance the preservation of the cultural significance of Chinese line drawing with the need to adapt to modern times. Some saw micromaterials as a bridge between the past and the future, while others were concerned about the potential erosion of cultural values.

Education and Skill Development emphasized the need for specialized training programs or workshops to help artists and students develop the skills needed to integrate new materials into their work without compromising the integrity of traditional Chinese line drawing.

5.0 Discussion

5.1 Elements of Decoration in Chinese Line Drawing

Chinese line drawing's decorative elements include symbolic motifs, line composition techniques, and ink/color usage. These elements are deeply rooted in cultural heritage but face challenges in modern contexts. Symbolic motifs risk losing their significance when used by younger artists without full understanding. Line composition techniques balance tradition and modern appeal, while ink and color usage sees experimentation with vibrant palettes. The key is adapting these elements to contemporary tastes without losing cultural significance.

5.2 Application of Micromaterials in Chinese Line Drawing

Integrating micromaterials offers enhanced texture and depth but requires specialized skills and training. Traditionalists worry about losing cultural depth, while younger audiences see innovation. Market reception varies, with a generational divide between contemporary art enthusiasts and traditional collectors. Precise control of micromaterials may undermine the contingency and handmade nature of line drawing, and these core philosophical aspects have not been fully critiqued.Balancing creative potential with practical, philosophical, and environmental concerns is crucial for successful integration.

5.3 Role of Micromaterial Images in Conservation

Micromaterial images significantly aid in preserving intricate patterns and ensuring cultural continuity through digital renderings (Anwar et al., 2015). However, concerns about over-reliance on modern techniques and environmental impacts persist. Younger participants are more enthusiastic about using these technologies for innovation and accessibility, while older respondents prioritize traditional materials. The paper reveals the generational divide among artist groups, yet it has not been extended to the attitudes towards technological integration among broader social groups such as the public, collectors, and educational institutions.

5.4 Synthesizing Quantitative and Qualitative Findings

The paper integrates quantitative and qualitative data, and the data sources were triangulated to understand micromaterials' role in Chinese line drawing. Understanding micromaterials and artistic preferences significantly influences perceptions of challenges and success. Qualitative insights highlight the need for education, skill development, and balancing tradition with innovation. Demographic factors also shape marketability and audience reception.

6.0 Conclusion & Recommendations

This paper has comprehensively explored the integration of micromaterials into Chinese line drawing. It has identified the key decorative elements in Chinese line drawing, including symbolic motifs, line composition techniques, and ink-color usage, and highlighted the challenges and opportunities in maintaining their relevance in contemporary art. The crucial role of modern technology in artistic creation. Artists explore new forms of artistic expression through new technologies and media (Michael & Abd Rahman, 2021; Michael et al., 2023; Michael et al., 2020). The application of micromaterials offers new creative possibilities in terms of enhancing texture and dimensionality but also brings about issues such as the need for specialized skills, philosophical and environmental concerns, and polarizing market reactions. Knowledge of micromaterial images significantly contributes to the conservation of Chinese line drawing design, with benefits like enhanced durability and accessibility. However, it also raises concerns regarding cultural authenticity, environmental sustainability, and potential over-reliance on technology. The quantitative analysis revealed that understanding of

micromaterials and artistic preferences are significant predictors of perceptions of challenges and success in the integration process, while demographic factors have a relatively weaker influence. The qualitative analysis further illuminated the complex interplay between tradition and innovation, creative freedom, technical challenges, marketability, cultural preservation, and the need for education and skill development.

For practice, artists should approach the use of micromaterials with a balanced mindset. They should experiment with these materials to expand their creative horizons while respecting the traditional values of Chinese line drawing. For instance, they can start with small-scale projects to test the compatibility of micromaterials with traditional techniques. Institutions should offer more workshops and training programs. These programs should cover both the technical aspects of using micromaterials and the cultural significance of Chinese line drawing. They can also facilitate collaborations between artists, material scientists, and conservationists to promote knowledge sharing and innovation.

For Future Research, future studies could focus on developing more sustainable micromaterials for use in Chinese line drawing. This could involve researching bio-based or recyclable materials that align with the ecological values of traditional Chinese aesthetics. There is also a need to explore further ways to balance tradition and innovation. Research could investigate how to incorporate micromaterials in a manner that enhances the art form without sacrificing its cultural essence (Abidin et al., 2008). This could involve studying different integration techniques and their impact on the aesthetic and philosophical aspects of Chinese line drawing. Finally, more research is needed to understand the long-term effects of micromaterials on artworks. This includes studying how these materials interact with traditional materials over time and their impact on the visual and structural integrity of Chinese line drawings. By addressing these areas, future research can contribute to the sustainable development of Chinese line drawing in the modern era.

Acknowledgement

Part of this paper was extracted from a doctoral thesis submitted to Universiti Teknologi MARA (UiTM).

Paper Contribution to Related Field of Study

The paper explores integrating micromaterials into Chinese line drawing to enhance its decorative qualities and address modern challenges. The findings highlight the importance of balancing innovation with cultural authenticity and enriche the understanding of preserving traditional art in the context of technological advancements.

References

Abidin, S. Z., Sigurjonsson, J., Liem, A., & Keitsch, M. (2008). On the role of formgiving in design. DS 46: Proceedings of E&PDE 2008, the 10th International Conference on Engineering and Product Design Education, Barcelona, Spain, 04.-05.09. 2008.

Abidin, S. Z., Warell, A., & Liem, A. (2011). The significance of form elements: a study of representational content of design sketches Procedings of the Second Conference on Creativity and Innovation in Design, Eindhoven, Netherlands. https://doi.org/10.1145/2079216.2079219

Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. In (Vol. 26, pp. 1113-1127): Taylor & Francis.

Anwar, R., Abidin, S. Z., & Hassan, O. H. (2015). A pattern in formgiving design: Giving priority to a principle solution in industrial design situation. Industrial engineering, management science and applications 2015.

Cheng, Y., Huang, M., & Sun, W. (2023). VR-based line drawing methods in Chinese painting. 2023 9th International Conference on Virtual Reality (ICVR).

Chu, Y. (2023). From Tradition To Modernity: Craftsmanship Of Four Treasures Of The Study And The Evolution And Development Of Painting Techniques.

Chuttur, M. (2009). Overview of the technology acceptance model: Origins, developments and future directions.

Davis, F. D., Granić, A., & Marangunić, N. (2024). The technology acceptance model: 30 years of TAM. Springer.

Guo, Q. (2023). The expression of lines in mural painting in Chinese meticulous figure painting. Frontiers in Art Research, 5(18).

Hidayat, M., & Mukminin, A. (2022). The diffusion of innovations model: Applications to education policymaking and critique. Edukasi: Jurnal Pendidikan dan Pengajaran, 9(2), 100-107.

Jiazhou, C., Keyu, H., & Yongwei, M. (2022). Surveys on line drawing simplification for Chinese cultural computing. Journal of China Universities of Posts and Telecommunications, 29(2), 33.

Kuo, W. (2023). An Exploration of the Water Painting Method in Ancient China. Journal of Literature and Art Studies, 13(6), 457-461.

Marangunić, N., & Granić, A. (2015). Technology acceptance model: a literature review from 1986 to 2013. Universal access in the information society, 14, 81-95.

Michael, V. A., & Abd Rahman, K. A. A. (2021). A study of hybrid art practices among the artworks of selected Malaysian artists. International Journal of Art and Design, 5(2), 13-23. https://ir.uitm.edu.my/id/eprint/50988/.

Michael, V., Abd Rahman, K. A. A., Michael, V., & Mohd Razali, N. (2023). An analysis of hybrid media practices by selected Malaysian artists. International Journal of Art and Design (IJAD), 7(1), 57-66. https://ir.uitm.edu.my/id/eprint/80324/.

Michael, V. A., Abd Rahman, K. A. A., Shukor, S. F. A., & Ali, N. A. M. (2020). Artistic Knowledge and Practices of Hybrid Art based on the Analysis of Malaysian Artists ' Artworks. Environment-Behaviour Proceedings Journal, 5(SI1), 111-117. https://ebpj.e-iph.co.uk/index.php/EBProceedings/article/view/2305.

Wang, C. (2023). Analysis of the Changes of the Form and Style of Chinese Traditional Painting with the Dynasties. 2022 4th International Conference on Literature, Art and Human Development (ICLAHD 2022).

Wang, S.-F., & Chen, C.-C. (2024). Exploring designer trust in artificial intelligence-generated content: TAM/TPB model study. Applied Sciences, 14(16), 6902.

Wani, T. A., & Ali, S. W. (2015). Innovation diffusion theory. Journal of general management research, 3(2), 101-118.

Wonglimpiyarat, J., & Yuberk, N. (2005). In support of innovation management and Roger's Innovation Diffusion theory. Government Information Quarterly, 22(3), 411-422.

Zollo, L., Rialti, R., Marrucci, A., & Ciappei, C. (2022). How do museums foster loyalty in tech-savvy visitors? The role of social media and digital experience. Current Issues in Tourism, 25(18), 2991-3008.