Opportunities and Challenges for Innovative Design of Traditional Tie-dyeing Techniques in the Era of Self-media

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Abstract: With the popularization of self-media, traditional tie-dyeing techniques in China have gained wider opportunities for dissemination and innovation. However, current self-media platforms face problems such as information overload, intense competition, and the inability of some products and processes to maintain traditional characteristics, which pose significant challenges to the dissemination and innovation of traditional tie-dyeing techniques. The article provides a detailed discussion and analysis of the opportunities and challenges brought by self-media to traditional tie-dyeing techniques, providing new references for innovative design of traditional tie-dyeing techniques in the era of self-media.

Keywords: Self-media era; Traditional tie-dyeing technique; Innovative design; Opportunity; Challenge

1. Overview of the development of traditional tie-dyeing techniques and contemporary innovative design

1.1. The historical context of the tie-dyeing process

Tie-dyeing is one of China's precious intangible cultural heritages and an important category in traditional arts and crafts, with rich cultural connotations and artistic value. According to historical research, tie-dyeing technology began to be applied to fabric dyeing in ancient China during the Qin and Han dynasties and was then known as tie and tie-dyeing. It has a history of about 1500 years to this day.

With the evolution of history, tie-dyeing techniques have been inherited and innovated in various dynasties. During the Six Dynasties period, people created deer maw by imitating the patterns of deer maw and created fish roe maw by tying and dyeing [1]. In the Tang Dynasty, the technique of using wooden boards to carve patterns for dyeing and the printing technique of using molds for dyeing emerged. At the same time, wax printing was also very popular, known in ancient times as wax printing, which involved drawing patterns on fabrics with wax and then dyeing them. The

parts covered with wax cannot be dyed, thus presenting patterns [2]. In the Ming Dynasty, over fifty types of dyes were used for dyeing, and specialized dyeing workshops emerged. Nowadays, tie-dyeing has developed various techniques, including bundling, seam dyeing, arbitrary folding, and immersion dyeing, which can produce different artistic effects.

In modern times, Yunnan, Guizhou, Sichuan, and other places in China have been inheriting and developing traditional tie-dyeing techniques. For example, in some cities in Yunnan, such as Zhoucheng, known as the hometown of tie-dyeing, many handicrafts made using tie-dyeing techniques are sold to tourists, such as shawls, scarves, etc., bringing economic benefits to the local area.

1.2. Tie-dyeing technology in contemporary innovative design

The tie-dyeing process usually uses flat fabric as the basis and creates different artistic effects by using various tie-dyeing techniques for dyeing. The works created by traditional tie-dyeing techniques are mostly flat, and the dyes used are mostly plant dyes, usually presenting indigo or cyan, mainly applied to clothing.

In today's society, with the inheritance of tie-dyeing technology, it has also been widely used in various products, enriching the forms of expression of tie-dyeing technology. At the same time, traditional tie-dyeing techniques are also integrated with uniquely shaped crafts and new materials, making the artistic effect of traditional tie-dyeing techniques no longer limited to flat fabrics [3].

1.2.1. The application of tie-dyeing in handicrafts

The combination of tie-dye craftsmanship and earring design endows earrings with a unique charm. Earstuds made of Miao silver material come in various shapes such as square, round, and oval. On the surface of the earring, hand-tie-dyed fabric is cut into small pieces and sealed in the center of the earring. The fusion of tie-dyeing technology and earrings gives earrings an elegant style that is different from metal materials, giving people a new feeling.

The combination of tie-dye craftsmanship and leather crafts design allows users to experience a unique feeling. A handmade tie-dye cultural and creative wristband cleverly combines cowhide and tie-dye fabric together. The shape of the wristband is similar to a watch, with the ring part made of real cowhide and a hard texture, while the main body of the wristband is decorated with tie-dyed fabric, presenting a soft color. The entire wristband gives people a unique feeling of combining rigidity and softness.

1.2.2. The combination application of tie-dyeing process and different materials

Generally speaking, the effect of traditional tie-dyeing on raw fabric usually has high color purity and a strong visual impact. The use of tie-dye for dyeing organza results in relatively low color purity, giving a fresh and elegant feeling. By utilizing the characteristics of organza, which undergoes shrinkage and shape changes at high temperatures, combined with tie-dyeing techniques, various rich effects can be created, further enhancing the artistic expression of tie-dyeing techniques.

Humans have a history of thousands of years in the application of fish skin materials. In today's society, people use discarded non-protected fish skins from the market as artistic carriers. The application of fish skin materials not only allows for the treatment and utilization of discarded fish carcasses, reducing environmental pollution, but also, combined with dyeing techniques, turns these discarded fish skins into works of art. This innovative application not only protects the natural environment but also achieves new breakthroughs and applications in tie-dyeing technology.

2. Opportunities for innovative design of traditional tie-dyeing techniques in the era of self-media

With the development of social platforms and the diversification of information dissemination, many individuals and small groups began to use the Internet platform to create and share their works. By disseminating and exchanging content through relevant platforms, individuals and groups can showcase their creative achievements more widely [4].

In the era of self-media, anyone can create and publish content through self-media platforms. For most people, creating content such as lifestyle vlogs, video content, or publishing news is relatively low-cost and may also generate some revenue. There are various forms of self-media creation, including images, audio, and other forms. Creators can create content according to the different preferences of the public.

In today's society, various self-media platforms have emerged as key opinion leaders in many fields, who play a huge driving role in cultural dissemination in their respective fields. For example, Li Ziqi, Grandpa Amu, and Zhu Tiexiong. In this situation, self-media platforms provide new opportunities for innovative design of traditional tie-dyeing techniques.

2.1. More extensive and efficient channels of dissemination

In the past, traditional methods of information dissemination mainly relied on media such as newspapers, magazines, radio, and news agencies. In contrast, traditional methods of information dissemination require editing, typesetting, and other steps, resulting in slower dissemination speed. Meanwhile, the public can only receive information in one direction and cannot engage in rapid interaction and feedback.

Today, the dissemination of information has become efficient and diverse. The innovative design of the traditional tie-dyeing process can be spread through various self-media platforms. Today, self-media platforms such as Jinri Toutiao, Sohu, Tiktok, Xiaohongshu, Himalaya, etc., can complete the dissemination of information in a short time. At the same time, self-media platforms have interactive commenting functions, allowing creators to receive timely feedback from the public and make corresponding improvements to create more valuable content. This dissemination method has expanded the traditional ways of tie-dyeing technology and improved dissemination efficiency.

The Ninghang wax printing in Danzhai, Guizhou Province is a national intangible cultural heritage project. To publicize the batik craft of Nanjing and Hangzhou, they created an official account on the WeChat platform, and released the production process and related works of batik crafts through Tiktok, Xiaohongshu, and other self-media platforms, so that more people learned about the batik craft of Danzhai.

2.2. More convenient and user-friendly design solutions

Design has always focused on human needs and embodies humanization in the design process. For traditional tie-dyeing techniques, in the process of inheritance, it is necessary to maintain the characteristics of traditional craftsmanship while also innovating design according to the needs of modern people.

Currently, utilizing self-media platforms to promote innovative designs of traditional tie-dye crafts can better interact with users and timely obtain their suggestions and feelings about tie-dye crafts. Self-media platforms have interactivity and timeliness and can respond to user feedback faster.

2.3. More possibilities for innovative inspiration

On self-media platforms, there are many creators with rich cultural heritage and knowledge, who share cultural knowledge in various fields.

Tiktok blogger Jiang Xunqian (September) focused on learning Chinese traditional arts and crafts, and made

ancient arts and crafts with modern materials and methods, realizing design innovation. She also designs and creates based on her own feelings in daily life. Traditional dragon and phoenix candles were essential for weddings in ancient times, and prolonged burning represents long-lasting happiness for couples. Jiang Xunqian uses sweet potatoes as a tool to draw candle patterns when making traditional flower candles. He draws decorative patterns on the candles and adds candle wax. He also incorporated some modern elements into the overall design and innovatively designed the dragon and phoenix flower styles.

Based on the above analysis, the design innovation of traditional tie-dyeing techniques can be approached from both traditional and modern perspectives, as well as from different cultural angles, integrating different fields and characteristic elements together. Based on maintaining traditional cultural characteristics, innovative design is carried out to endow traditional tie-dyeing techniques with new features.

2.4. A broader commercial platform

The self-media platform provides a broader commercial platform for innovative design of traditional tie-dyeing techniques. At present, many cultural products are sold through commercial channels provided by self-media platforms and successfully promote their own culture. Yuelu Academy sells accounting books printed with the academy's rules, bookmarks based on the academy's appearance, and the Four Treasures of the Study through the WeChat store of No. 9 Academy. These products effectively spread the teaching philosophy and cultural connotations of the academy, and bring economic value to Yuelu Academy.

The self-media platform has created a new business model for traditional tie-dyeing techniques, such as online sales and customized services, further expanding the market space of traditional tie-dyeing techniques. At the same time, the retail sales of physical goods on the Internet are also increasing year by year, and the e-commerce platform has attracted a large number of consumers. This innovative development of tie-dyeing technology provides another way.

3. The challenge of innovative design in the traditional tie-dyeing process in the era of three self-media

3.1. Information overload and fierce competition on self-media platforms

Today's self-media platforms, such as WeChat, Weibo, TikTok, etc., have brought together a large number of creators. According to the statistics of the Annual White Paper of Kwai Music in 2022, 350 million creators created more than 13.8 billion works in 2022 alone. Meanwhile, self-media platforms have the characteristic of fast dissemination speed, pushing a large amount of information every day, including news, short videos, advertisements, and other user-created content.

According to a study published in the American magazine Computers in Human Behavior in 2014, more and more news is being delivered to readers through print, broadcast, and interactive means. In today's society, people can access a large number of articles, images, and videos anytime and anywhere. However, in this situation, people must deal with a large amount of irrelevant information from the outside world.

This article reflects that in the self-media environment, the amount of information is extremely large, with a wide and diverse range of sources, making it inevitable for people to face a large amount of irrelevant information. Excessive information may make it difficult for people to filter out valuable content for themselves, and may even have an impact on the brain's information processing ability and cognition. In this situation, the innovative design of the traditional tie-dyeing process needs to stand out on self-media platforms and attract public attention, generating high influence in fierce competition, which is a huge challenge for the traditional tie-dyeing process.

3.2. Maintain a balance between traditional characteristics and adapting to the market

In the era of self-media, the design ideas of creative products continue to emerge, like spring shoots emerging endlessly. In this context, maintaining the traditional characteristics of tie-dyeing technology and carrying out innovative design is also a major challenge [5]. At present, various creative product design ideas are rapidly emerging, like green grass in spring. The public's expectations for design and innovation are constantly increasing, which is also a huge challenge for maintaining the characteristics of traditional tie-dyeing techniques while carrying out innovative design.

Embroidery is a technique of manually embroidering various decorative patterns on fabric. However, with the rise of modern production methods, many traditional embroidery techniques have gradually been replaced by machines. Embroidery, as a unique traditional craft in China, has a unique artistic charm. In recent years, to meet market demand, some businesses have increased their embroidery production and extensively used machine embroidery, such as Hong embroidery. This has resulted in machine embroidery producing more than manual embroidery. There are also many machine embroidery works for sale in the online stores of self-media platforms. Although machine embroidery can improve the production speed of handicrafts, it cannot fully reflect the artistic value and cultural connotation of embroidery works [6].

4. Thoughts on the development of tie-dyeing technology in the era of media
4.1. Analysis of the successful reasons for the dissemination of traditional arts and crafts on self-media platforms

On current self-media platforms, figures such as Jiang Xunqian, Peng Nanfangke, and Shan Bai who are dedicated to spreading traditional arts and crafts can achieve high influence mainly for the following reasons.

Unique themes and styles: Their videos have clear themes and unique personal styles that can attract the audience's attention. For example, Jiang Xunqian showcases traditional Chinese culture in a fresh style, Peng Nanke focuses on spreading agricultural skills and intangible cultural heritage, and Shan Bai focuses on replicating traditional objects such as brush, ink, paper, and inkstone. These unique themes and styles make them stand out among many self-media creators.

Professional content production: Their accounts and series of videos are all very professional, with dedicated personnel overseeing topics, script planning, content presentation, filming techniques, editing skills, and subsequent operation and dissemination. For example, Jiang Xunqian's videos are well produced, with beautiful visuals that can bring viewers aesthetic enjoyment. Peng Nanke uses skilled techniques and cross-temporal production methods to help viewers better understand agricultural skills and traditional culture.

Interaction and communication with the audience: They focus on interaction and communication with the audience, establishing a good relationship with them through replying to comments, private messages, and other means. For example, Jiang Xunqian interacts with fans in the comment section and answers their questions, which makes fans feel her affinity. They also make corresponding adjustments to their videos based on feedback from fans.

In the era of self-media, the inheritance of tie-dye craftsmanship can be inspired by successful cases. Communicators should clarify the theme and shape a unique style, such as exploring the cultural connotations of tie dye and presenting them in different styles to attract audiences. Emphasis on professional content production, covering multiple topics, showcasing the beauty of tie-dyeing through rich forms and exquisite techniques.

4.2. Establishing domain brands and cultivating domain KOLs

In the era of self-media, establishing an independent brand can give a product or enterprise a unique identity, making it stand out in the market. The establishment of a brand can not only enhance its own value and shape a unique image but

also enhance its competitiveness in market competition. At the same time, key area advocates (KOLs) with high visibility can help promote the brand through their own influence, which can help shape the brand's image and reputation [7].

In the era of self-media, to cope with issues such as information overload and fierce competition, innovative design of traditional tie-dyeing techniques can be achieved through brand building. People can use self-media platforms to publish videos introducing traditional tie-dyeing techniques and interact with users to understand their interests and needs. Based on maintaining the characteristics of traditional tie-dyeing techniques, innovative designs are carried out to meet the needs of users. Gradually establish one's own brand, promote tie dye crafts, and thus promote innovation in traditional tie dye craft design. At the same time, it can cultivate key opinion leaders (KOLs) with professional knowledge, promote tie-dyeing techniques, and enhance brand awareness and influence.

5. Summary

In the era of self-media, there are both opportunities and challenges for innovative design of traditional tie-dyeing techniques. By fully utilizing the advantages of self-media platforms, one can establish their own unique brand image. On the premise of maintaining traditional tie-dyeing techniques, innovative designs are carried out according to market and user needs to expand the market space of tie-dyeing crafts. At the same time, cultivating key opinion leaders in the field of tie-dyeing technology provides more possibilities for the inheritance and innovation of tie-dyeing technology. Through these efforts, success can be achieved in the era of self-media and promote the development and innovation of traditional tie-dyeing techniques.

Disclosure statement

The author declares no conflict of interest.

Reference

[1]   Wang SQ, Xu YQ, 2013, The Most Beautiful Weaving, Dyeing and Embroidery in China. Hubei Fine Arts Publishing House, Wuhan, 1–2.
[2]   Tian ZB, 2024, History of Chinese Arts and Crafts. Business Library, 2014(8): 154–155.
[3]   He BR, Wu Y, Liang QH, 2023, Tie-dyeing Technology and Its Innovative Application in Modern Cultural and Creative Design. Liaoning Silk, 2023(4): 65–66.
[4]   Zhang YL, Li YH, 2022, A Study on the Communication Path of Nantong Tie-dyeing from the Perspective of New Media. Lianlian, 2022(2): 4–6.
[5]   Chen YJ, 2022, Inheritance and Development of Tie-dyeing Craft under the Background of Intangible Cultural Heritage Protection. Western Leather, 44(15): 19–27.
[6]   Li F, 2007, A Brief Discussion on the Problems and Development Trends Faced by China's Contemporary Embroidery Industry. Art and Design (Theory), 2007(2): 136–137.
[7]   Zhang ZY, 2022, Research on the Construction and Communication of Self-media Brands from the Perspective of Omnimedia: Taking the New World as an Example, thesis, Qingdao University of Science and Technology.