

Implementation Pathway of "School-Local Government Cooperation" in Design Education Guided by Rural Aesthetic Education from the Perspective of Rural Revitalization in China: A Case Study of the Environmental Art Design Major

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Abstract: This study provides a comprehensive review and in-depth analysis of the current status of rural aesthetic education in China through the mechanism of school-local government cooperation, establishing a solid theoretical foundation for aesthetic education practices under the rural revitalization strategy. Within the context of rural revitalization, the practical challenges faced by aesthetic education are thoroughly examined, and its functional roles are systematically clarified. The study highlights the core values of design education in supporting rural aesthetic education, encompassing multiple dimensions: the innovation of cultural heritage, the cultivation of aesthetic literacy and social responsibility, the optimization of rural governance, the promotion of sustainable development, and technology-driven industrial upgrading. Moreover, a practical pathway for implementing school-local government cooperation mechanisms is proposed, including the integration of environmental art design majors into diversified aesthetic education curricula, the formation of multi-dimensional collaborative rural teaching teams, the organization of distinctive rural aesthetic education activities, and the creation of immersive rural aesthetic education spaces. The findings indicate that design education oriented toward rural aesthetic development plays a significant role in the rural revitalization strategy. With the rapid advancement of the internet, big data, and artificial intelligence technologies, future efforts should focus on exploring the application of digital technologies in rural aesthetic education, thereby offering more comprehensive theoretical support and operational guidance for higher education design programs in serving rural revitalization in China.

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1. Introduction

In recent years, rural revitalization has emerged as a central focus in China, garnering widespread attention across social, economic, and cultural spheres. Within the broader rural revitalization strategy, cultural revitalization assumes a leading role, serving as a critical task for realizing the holistic development of rural areas. The cultural sector is rapidly integrating into the broader framework of rural revitalization, bringing new vitality to rural development. Through the combination of cultural and creative products, agricultural commodities, immersive cultural experiences, recreational activities, exhibition-based training, and design services, a diversified approach to rural development is gradually taking shape. From a global perspective, such integration not

only promotes the development of smart agriculture but also fosters innovative thinking among rural residents and contributes to the construction of harmonious, liveable, and aesthetically enriched villages.

It is particularly important to emphasize that aesthetic education constitutes an indispensable component of cultural revitalization. By cultivating aesthetic sensibilities, creative thinking, and cultural awareness, aesthetic education serves as a foundation for nurturing both individual and community development in rural areas. As a key conduit for delivering aesthetic education, design education has emerged as a vital force driving rural revitalization. Leveraging its professional expertise, innovative methodologies, and technological advantages, design education provides both human capital and strategic guidance for rural cultural and aesthetic transformation.

The primary objective of this study is to investigate the value of design education, oriented toward rural aesthetic education, in empowering rural revitalization. In addition, the study proposes a concrete practical pathway to implement such educational strategies, aiming to offer both theoretical support and actionable guidance for promoting sustainable, culturally vibrant, and aesthetically enriched rural development across China. Through these efforts, design education can play a transformative role in shaping the cultural, social, and economic dimensions of rural communities, thereby contributing to the long-term success of the rural revitalization strategy.

2. Internal Logics between Rural Revitalization and Design Education in China

2.1. Developing Background of Rural Revitalization in China

The rural revitalization strategy in China aims to address the challenges facing agriculture, rural areas, and farmers in the contemporary era. It clearly delineates the direction of rural development and elevates rural progress to the level of a national strategy, thereby opening a new chapter in rural transformation and advancing the concept of urban-rural integrated development. As a strategic national initiative, the core objective of rural revitalization is to resolve developmental disparities in rural regions, enhance the living standards of farmers, and accelerate the process of agricultural modernization while further integrating urban and rural development.

The strategy emphasizes scientific planning and the rational allocation of rural resources, proposing practical pathways to promote coordinated advancement across multiple dimensions, including rural economy, talent cultivation, cultural development, ecological protection, and social welfare. Through such an integrated approach, the strategy seeks to achieve comprehensive progress, prosperity, and well-being in rural areas. Within this framework, cultural revitalization serves as the soul of rural revitalization, playing a pivotal role in realizing the overarching vision of holistic rural development and improving the quality of life for rural residents.

2.2. Role of Aesthetic Education in Rural Revitalization

Rural aesthetic education plays a critical role in both cultural revitalization and the broader rural revitalization strategy, stimulating villagers' appreciation for a higher quality of life, fostering positive and optimistic attitudes, and promoting healthy, upward-oriented lifestyles [1]. Despite its importance, the practical implementation of rural aesthetic education faces significant challenges. At the basic education stage, there is considerable room for improvement in the allocation of educational resources, teaching staff, and program design. Therefore, strengthening the development and cultivation of rural aesthetic education is of paramount importance.

Rural aesthetic education focuses on leveraging artistic perspectives and design strategies to create aesthetic educational spaces, enrich rural aesthetic activities, promote local aesthetic culture, and advance rural cultural tourism. It also seeks to expand aesthetic education teams, enhance cultural self-confidence, and provide essential support for implementing the rural revitalization strategy [2]. As shown in Table 1, the specific roles

of rural aesthetic education across various dimensions of rural revitalization are summarized.

Table 1. Specific roles of rural aesthetic education in the aspects of rural revitalization.

Aspects of rural revitalization	Specific roles of rural aesthetic education
Cultural inheritance	Excavating the elements of rural traditional culture and promoting the creative transformation and innovative development of culture.
Aesthetic literacy improvement	Improving the aesthetic appreciation and humanistic quality of rural residents through aesthetic education courses and practice
Rural governance	Improving the rural living environment and quality, and enhancing happiness and sense of belonging of local residents.
Industrial upgrading	Activating rural cultural tourism industry, and promoting diversified economic development through combining science and technology to create rural cultural IP

2.3. Integrating Points of Design Education in Colleges and Rural Aesthetic Education

Cultural revitalization is inseparable from aesthetic education, and design education serves as a key approach to achieving the goals of aesthetic education. Design education exhibits unique advantages in empowering rural aesthetic education. As an innovative educational model, its core purpose is to cultivate students' creativity, practical skills, and innovative consciousness. This model emphasizes the development of design thinking, aesthetic perception, and hands-on abilities, equipping students to tackle complex real-world challenges and provide innovative, sustainable solutions.

Colleges offering design education can contribute aesthetic education resources through their professional talent pool, innovative ideas, and technical expertise, thereby promoting cultural revitalization and industrial upgrading in rural areas. Within the context of rural revitalization, the significance of aesthetic education has become increasingly prominent, serving as a form of soft power that enhances cultural development and strengthens rural revitalization. When oriented toward rural aesthetic education, design education aligns with rural realities and farmers' needs, improving the quality of rural construction and injecting new vitality into rural cultural production. By serving the needs of rural communities, agriculture, and farmers, design education facilitates cultural revitalization, revives local traditions, and fosters creative reinvention of rural culture [3].

3. Value Implication of the Environmental Art Design Major Empowering Rural Revitalization

3.1. Value of Cultural Inheritance and Innovative Practice

The implementation of the rural revitalization strategy in China extends beyond simple beautification projects, aiming to enable villagers to experience modern, healthy, liveable, and aesthetically enriched production and lifestyles. A key objective is to explore rural cultural resources with distinctive regional characteristics, including traditional customs and festivals, natural ecology, unique residential architecture, and intangible cultural heritage skills, thereby promoting the development of rural aesthetic education. Designers play a crucial role in achieving the creative transformation and innovative development of these cultural resources [4].

Specifically, designers are expected to enhance their professional skills through participatory engagement and on-site village practice. They should adhere to principles

of local adaptation, scientific planning, and resource conservation, actively integrate resources from multiple stakeholders, and strive to cultivate environments conducive to rural development. A typical example is Youtian Village in Zhejiang Province, where innovative design of traditional folk festival activities-incorporating modern lighting art, immersive interactive experiences, and other creative elements-has attracted numerous tourists from surrounding cities. This approach not only preserves the cultural essence of "reverence for ancestors and gratitude toward nature" but also stimulates the development of local tourism industries, including homestays and artisan workshops.

3.2. Value of Aesthetic Literacy and Social Responsibility

Design education in higher education institutions should extend beyond technical skill training to cultivate students' social responsibility and capacity for active engagement in social innovation. Through project-based practice and community service, students gain deeper insight into societal needs, strengthen their local consciousness, and develop into high-quality technical professionals with innovative thinking and a strong sense of social responsibility.

Simultaneously, the implementation of aesthetic education courses and practical activities significantly enhances the aesthetic literacy and humanistic quality of rural residents. Surveys indicate that villagers who have participated in aesthetic education programs demonstrate improved ability to appreciate artistic works and heightened expectations for the aesthetic quality of their living environment.

3.3. Value of Rural Governance and Sustainable Development

Environmental art design integrates artistic expression with ecological considerations, aiming to create public spaces that are aesthetically valuable, functionally practical, and socially meaningful. Within rural aesthetic education, Chinese designers apply the principles of green design to improve living environments, incorporating local ecological resources, sustainable building materials, engineering technologies, environmental science, and advanced lighting techniques. These efforts aim to enhance the quality of life, strengthen residents' sense of belonging, and promote active innovation and sustainable development in rural areas [5].

Through these initiatives, college students' innovative thinking and design abilities are also enhanced. As shown in Figure 1, the application of environmental art design in a Chinese village visibly demonstrates significant improvements in the living environment before and after transformation.



(a) before environmental transformation.



(b) after environmental transformation.

Figure 1. A rural environmental art design to improve the living environment.

3.4. Value of Technology Empowerment and Industrial Upgrading

In the era of intelligent creativity, the environmental art design major emphasizes comprehensive research on emerging technologies, innovative processes, advanced materials, and creative thinking. For rural revitalization, environmental art design education integrates science and technology with artistic principles-an "art + science and technology" approach-to create rural cultural IP, enhance the artistic value of creative spaces, activate rural cultural tourism, and foster diversified economic development [6].

As shown in Table 2, several successful examples in China demonstrate how the combination of art and technology can effectively promote rural industrial upgrading and build cultural IP.

Table 2. Typical successful cases of "art + technology" combination to promote rural industrial upgrading in China.

Village name	Science and technology used in practice	Cultural IP building	Influences on industrial upgrading
Wuyuan Ancient Town	VR and AR technologies	VR technology is used to present the four-season landscape and create "eight-night tour products", such as Xianjie lanterns and water curtain movies.	In 2024, night visitors accounted for 45%, and tourism revenue increased by 7%.
Anji Mantangli	Holographic interaction, 3D imaging holographic cabin and digital human technology	Building bamboo lamp IP, and integrating night economy with ancient village culture	Annual income from night culture and tourism consumption achieved ten million, greatly driving the development of related scenic spots.

4. Practice Path of Rural Aesthetic Education Integrated in the Mechanism of "School-Local Government Cooperation": Taking the Environmental Art Design Major as an Example

4.1. Building a Diversified Rural Cultural Environment

Environmental art design represents an important practical approach to cultivating top talents in design education. Considering the characteristics of rural areas in China, township central schools serve as core hubs, with rural infrastructure improvements supporting the smooth implementation of cultural activities. Idle school buildings or township cultural stations can be leveraged to facilitate rural cultural development.

By integrating art, science, technology, and community resources, the diversity of rural cultural expression is significantly enhanced. In practice, colleges and universities can organize interdisciplinary design workshops that involve villagers in co-creation processes, combining local traditional crafts with modern design elements to develop distinctive cultural products. Long-term cooperation mechanisms should be established, including regular cultural festivals or art fairs that integrate rural aesthetic education activities. Such initiatives promote interaction across different community groups, invigorate rural culture, and support industrial upgrading and sustainable development.

Moreover, campuses serving as sites for aesthetic education should reflect the principles of aesthetic design. The integration and dialogue with nature-through grass, wood, bricks, and tiles-can act as carriers of cultural expression. Harmonious, beautiful,

and distinctive campus aesthetic spaces enhance students' understanding of beauty across knowledge, emotion, intention, and behavior. As shown in Figure 2, rural schools can create compelling aesthetic education spaces that combine functionality with cultural expression.



Figure 2. Propaganda exhibition place in a rural school.

4.2. Building a Diversified Curriculum System of Aesthetic Education

Aligned with the characteristics of rural culture, the environmental art design major develops local aesthetic education courses based on practical cases, including customs and festivals, natural ecology, residential architecture, and intangible cultural heritage. These elements constitute key resources for rural aesthetic education. By deeply exploring the unique cultural and artistic elements of the countryside, aesthetic education courses can be designed to allow students to experience the charm of rural culture during their studies [7].

In addition, integrating digital technology and innovative teaching methods helps balance the disparities between urban and rural aesthetic education resources. High-quality teaching resources can be shared more effectively, providing students with a more vivid and intuitive learning experience and improving the practical quality of rural aesthetic education. As shown in Table 3, some representative design cases and teaching objectives are illustrated.

Table 3. Design cases of rural aesthetic education curriculum.

Course name	Rural cultural elements incorporated	Teaching objectives
Rural folk painting	Traditional festival customs, folk tales, and so forth	Cultivating students' painting skills and deepening their understanding of rural folk culture.
Vernacular architecture model making	Rural characteristic residential buildings	Improving students' practical ability and understanding the aesthetics of vernacular architecture.

4.3. Cultivating Diversified Rural Teachers

Implementing rural aesthetic education projects through the "school-local government cooperation" mechanism is not only essential for rural cultural governance and revitalization but also crucial for promoting balanced educational development in China. Cultivating a diverse group of rural teachers is particularly important for bridging the gap between urban and rural education resources.

Professional training for rural aesthetic education teachers should be strengthened, providing systematic aesthetic education and professional guidance for in-service and part-time educators. Additionally, targeted training programs for public-funded normal students should focus on developing a cohort of skilled aesthetic education teachers. College student summer programs and social practice activities provide opportunities for young students from environmental art design programs to participate in rural development. Local individuals with artistic expertise, urban artists, and volunteers serve as valuable supplements to rural aesthetic education teams. Retired art teachers, cultural center artists, and outstanding folk artists can also contribute as part-time educators.

Extensive practice demonstrates that expanding the team of aesthetic education teachers and establishing social aesthetic education forces are effective strategies to promote balanced urban-rural educational development through precise support. As shown in Figure 3, the composition and training methods of rural aesthetic education teachers are summarized.

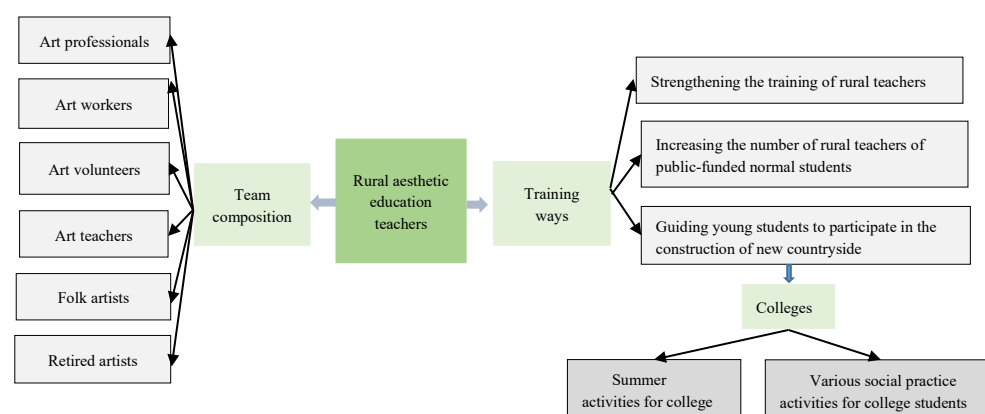


Figure 3. Composition and training ways of rural aesthetic education teachers.

4.4. Conducting Colourful Rural Aesthetic Education Activities

Various aesthetic education approaches can empower rural construction through the establishment of art creation bases, volunteer service teams, aesthetic education workstations, and art caravans, as well as the organization of cultural and rural art festivals, rural stages, and art museums. By integrating design works into the rural cultural tourism industry, these activities enrich and beautify the rural environment while enhancing the cultural value and stimulating local economic development.

For example, in alignment with the national rural revitalization initiative, the "Dream Flower" volunteer service team from Nanjing Polytechnic Institute carries out a series of hand-painted rural activities. Volunteers integrate local cultural resources into wall painting designs, excavate intangible cultural heritage, and present the distinctive rural culture of Jiangsu Province. As shown in Table 4, these activities demonstrate diverse forms and tangible outcomes in rural aesthetic education.

Table 4. Typical forms and effects of rural aesthetic education activities.

Forms of aesthetic education activities	Effects of the activities
Artistic creation base	Attracting artists to settle in; Creating a large number of rural theme works; Enhancing the atmosphere of rural art.
Culture and art festival	Enriching the cultural life of villagers;

Attract tourists;
Promote the spread of rural culture and economic
development.

5. Conclusions

This paper has described multiple approaches to implementing rural aesthetic education within the context of rural revitalization in China. Fundamentally, rural aesthetic education should be grounded in local realities, exploring the aesthetic value of rural areas to promote revitalization through the power of aesthetic education. The environmental art design major, oriented toward rural aesthetic education, bears significant responsibility in empowering rural revitalization. It is essential to deepen cooperation mechanisms between universities and rural communities, establishing long-term empowerment frameworks. Future research and practice should focus on the application of digital technologies and innovative models in rural aesthetic education, fostering deeper integration between aesthetic education and rural revitalization, and ultimately achieving comprehensive revitalization of rural areas in China.

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