

Research on the Dynamic Inheritance and Value Transformation of Shenyang's Qing Culture Tourism and Cultural Derivatives from the Perspective of "AI+IP"

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Abstract

Against the backdrop of artificial intelligence becoming deeply embedded in the cultural sector, cultural tourism derivatives have risen to prominence as key instruments for both the living preservation and the economic valorisation of heritage assets. Shenyang, recognised as a principal cradle of Qing civilisation, boasts UNESCO-listed sites such as the Imperial Palace, Zhao Mausoleum, and Fuling Mausoleum. Nevertheless, its Qing-culture-oriented tourism merchandise has long been plagued by pronounced homogenisation, insufficient symbolic decoding of cultural elements, and a modest level of digital integration. Employing the "AI + IP" paradigm as its analytical lens, this paper offers a comprehensive examination of the extant conditions and prevailing challenges confronting Shenyang's Qing-culture derivatives. In response, it articulates strategic avenues along three axes: the digital consolidation of Qing-culture IP, design innovation driven by AI capabilities, and value enhancement through the synergetic fusion with tourism scenarios. The central contention is that AI technology not only underpins the retrieval, semantic translation, and dissemination of Qing-culture IP, but also forges a robust conduit between "living inheritance" and "value realisation." In doing so, it enables Shenyang's Qing-culture derivatives to evolve from a mere transposition of symbols toward a substantive reconstruction of cultural meaning.

Keywords

AI+IP, Qing culture, cultural tourism derivatives, dynamic heritage, value transformation, Shenyang.

1. Introduction

The report of the 20th National Congress of the Communist Party of China explicitly stated, "Cultivate tourism with culture and showcase culture through tourism, promoting the deep integration of culture and tourism." This strategic directive has charted a course for the protection and inheritance of cultural heritage as well as the innovative development of the cultural and tourism industry. Meanwhile, the "Opinions on Implementing the National Cultural Digitalization Strategy" issued by the General Office of the CPC Central Committee and the State Council proposed to "facilitate the adaptation of the most fundamental cultural elements of the Chinese nation to contemporary culture and modern society," accelerate the digitalization of the cultural industry, and "cultivate a group of new cultural enterprises in fields such as cultural data collection, processing, trading, distribution, and presentation." In 2025, the "Action Plan for Deepening Smart City Development and Advancing Omnipresent Digital Transformation," jointly issued by five departments including the National Development and Reform Commission, further proposed "strengthening the innovative application of digital intelligence technologies in cultural and tourism content creation, scenario generation, and tour guidance, as well as promoting the revitalization of cultural heritage such as museum artifacts, ancient

texts, and historic architecture." The successive issuance of these policy documents marks the elevation of digital revitalization of cultural heritage and the deep integration of culture and tourism to a systematic national strategy.

In the era of rapid advancement in artificial intelligence technology, digital tools such as generative AI and large models are deeply integrating with various cultural IPs, "bringing ancient artifacts out of display cases and revitalizing traditional culture with a new era's brilliance." As cultural symbols or content carriers with recognizable identity, emotional value, and commercial extendibility, the fusion of IPs with AI technology is reshaping the inheritance models and value realization paths of cultural heritage[1].

As the core repository of Qing culture, Shenyang boasts three UNESCO World Heritage Sites: the Shenyang Imperial Palace, the Qing Tomb (North Mausoleum), and the Fengtian Tomb (East Mausoleum). However, compared to the imperial palace cultural tourism industry in Beijing, which generates annual sales of 1.5 billion yuan and offers over 10,000 product types, the development of Qing culture-themed cultural tourism derivatives in Shenyang remains at an early stage. Effectively harnessing AI to revive the contemporary worth of Qing cultural IPs, while simultaneously attaining the living transmission and value transformation of cultural tourism derivatives, constitutes a salient theoretical and practical conundrum that demands expedited scholarly deliberation.

2. Development Status and Problem Analysis of Qing Dynasty Cultural Tourism Derivatives in Shenyang

2.1. Endowment Advantages and Development Foundation of Qing Cultural Resources

The Qing cultural resources in Shenyang possess irreplaceable historical value and cultural distinctiveness. In 2004, the Shenyang Imperial Palace, Qing Fuling Mausoleum, and Qing Zhaoling Mausoleum were listed in the World Cultural Heritage List as expansion projects of the Ming and Qing imperial palaces and imperial mausoleums. With the "One Palace, Two Mausoleums" as the core, Shenyang has formed a relatively complete cluster of Qing cultural heritage, reflecting the birthplace and capital layout of the Manchu Qing Dynasty. In recent years, Shenyang has adhered to the principle of "shaping tourism with culture and highlighting culture through tourism", creatively transforming and innovating cultural relic resources to activate the integration of culture and tourism[2]. In 2022, the sales revenue of cultural and creative products developed around Qing culture in Shenyang exceeded 120 million yuan, with the "Eight Scenic Spots of Shengjing" series of cultural and creative products receiving good market response. The Shenyang Imperial Palace Museum has continuously promoted the "Intangible Cultural Heritage into the Palace" activity, introducing various intangible cultural heritage projects such as filigree inlaying craftsmanship, woodblock printing, cloth pasting, Xinbin Manchu paper cutting and embroidery, and cheongsam making skills, effectively expanding the display and dissemination channels of intangible cultural heritage. In 2025, the "Architectural Theme Series Cultural and Creative Products" of the Shenyang Imperial Palace won the second prize in the cultural and creative category of the Shenyang Industrial Design Competition. These products incorporate elements from ancient architecture and use multi-layered wooden inlay techniques to recreate their style. These practices demonstrate that Shenyang's Qing dynasty cultural tourism derivatives have already established a solid industrial foundation and gained market recognition.[3].

However, compared to cultural IPs such as the Beijing Palace Museum and Dunhuang, which have already accumulated substantial brand momentum, Shenyang's Qing culture-themed cultural tourism derivatives still lag significantly in terms of brand reach, product line completeness, and market penetration. Existing research indicates that Shenyang's cultural and

creative industry as a whole is still in its early stages, with low market concentration and insufficient industrial chain driving effects from leading enterprises. This assessment also applies to the niche segment of Qing dynasty cultural tourism derivatives.

2.2. Homogenization Dilemma and Insufficient Transformation of Cultural Symbols

The most prominent issue currently facing the cultural and tourism derivatives of Qing Dynasty culture in Shenyang is severe homogenization and insufficient transformation of cultural symbols. Some scholars have explicitly pointed out in their research on the cultural and creative products of the Shenyang Imperial Palace that "issues such as homogenization and insufficient transformation of cultural symbols are prevalent" in their design. Specifically, a large number of products remain at the level of simple replication and labeling of superficial symbols such as palace architecture and dragon and phoenix patterns, lacking exploration and contemporary expression of the deep connotation of Qing Dynasty culture.

The root of the problem with this "symbolic transportation" development model lies in three aspects: Firstly, designers' understanding of Qing Dynasty cultural resources remains superficial, failing to deeply grasp the cultural logic and aesthetic spirit of Qing Dynasty's creative arts. Secondly, the long design cycle and high cost of traditional cultural and creative designs limit the space for product iteration and diversified exploration. Thirdly, there is a lack of product design ability to transform cultural symbols into products with contemporary aesthetic value and practical functions. Homogenization not only weakens the market competitiveness of products but also dilutes the brand recognition and emotional value of Qing Dynasty cultural IP. As pointed out by research, "there is still room for improvement in the transformation efficiency of cultural heritage resources, and some projects exhibit homogenization and lack innovation."

2.3. Low Level of Digitalization and Lagging Technological Application

Shenyang's Qing cultural heritage has made "good progress in the application of new technologies such as virtual reality and artificial intelligence, but there is still much room for improvement." Some studies suggest that "it is necessary to focus on enhancing the technological research and development capabilities and application abilities for traditional cultural heritage, and narrow the gap between cultural heritage and modern technology." Nationally, the Palace Museum has continuously deepened the research and development of cultural and creative products, actively promoted the operation and expansion of cultural theme IPs, and "AI technology has become the core engine driving the creative transformation and innovative development of excellent traditional Chinese culture." In contrast, the application of AI-assisted design, digital display, and intelligent interactive experience in Shenyang's Qing cultural tourism derivatives is still in the exploratory stage, and a systematic technology application system has not yet been formed.

The delay at the technical application level poses constraints in at least three aspects: the lack of design efficiency hinders the ability to meet the practical demands of batch production and multi-variety product development; the monotonous product form fails to adapt to the innovative forms required for the new digital consumption scenarios; the weak user experience is unable to meet the demands of contemporary publics for immersive and interactive cultural experiences. Although Shenyang City has clearly set the development orientation of "developing creative new products and cultivating new tourism and cultural business forms" in the "Data Element × Tourism and Culture" action plan, from the current actual situation of cultural tourism derivative products, this goal has not been fully achieved.[4].

3. Strategic Path for Driving the Living Inheritance and Value Transformation of Shenyang Qing Cultural Tourism Derivatives through "AI+IP"

3.1. Digital Construction of Qing Dynasty Cultural IP: From Symbol Extraction to Systematic Expression

The value foundation of cultural tourism derivatives lies in the IP. To promote the dynamic inheritance of Qing Dynasty cultural tourism derivatives, the primary task is to establish a clear and systematic IP framework for Qing Dynasty culture. This construction process can be grasped from three dimensions.

Firstly, the digital collection and typification of Qing Dynasty cultural elements. By leveraging advanced technologies such as high-definition image capture, 3D modeling, and digital twin, high-precision digital records are made of cultural resources including the architectural remains of the Shenyang Imperial Palace, Qing Dynasty cultural relics, court clothing systems, and Manchu folk customs. Previous studies have attempted to "extract classic symbols suitable for cultural product design from the architectural remains of the Shenyang Imperial Palace", and on this basis, a database of Qing Dynasty cultural elements can be further constructed. These elements can be systematically classified according to categories such as architectural form, object shape, color spectrum, clothing patterns, and folk symbols, thereby providing clear-structured and easily accessible material resources for subsequent IP development.

Secondly, the symbolic translation and systematic presentation of the Qing culture IP. The semiotic theory provides an important methodological reference for the construction of cultural IPs. According to Peirce's semiotic theory, some scholars have explored the application of AIGC in the design of cultural products of the Shenyang Imperial Palace. By "sorting and classifying the cultural elements of the Shenyang Imperial Palace", new design paths have been derived. Under the analytical framework of "AI + IP", symbolic translation no longer solely relies on the creative expression of individual designers, but can utilize AI models to learn, analyze and reorganize a large amount of cultural symbols, thereby generating an IP visual system that not only inherits cultural genes but also conforms to contemporary aesthetics. It should be noted that the Qing culture IP should not be narrowed down to a single isolated image identifier, but should be constructed as a complete IP system covering multiple subsystems such as visual identification, story narration and product application [5].

Thirdly, the activation and deepening of the emotional dimension of the Qing Culture IP. The lasting competitiveness of an IP ultimately depends on the strength of the emotional connection between it and the audience. The construction of the Shenyang Qing Culture IP should not stop at the dissemination of visual symbols; it should also deeply explore the humanistic spirit, aesthetic interests and life wisdom carried by Qing Culture, thereby constructing a cultural narrative with emotional appeal. By conducting semantic analysis and emotional mining on materials such as Qing Dynasty documents, paintings, and artifacts using AI technology, the IP can be infused with more profound cultural connotations and emotional layers.

3.2. Design Innovation Driven by AI Technology: From Artificial Creation to Human-Machine Collaboration

The introduction of AI into the design process of cultural tourism derivatives signals a fundamental reorientation of the creative paradigm-away from a purely human-driven approach and toward a collaborative model in which machine intelligence and human expertise operate in tandem. This transition manifests itself across several dimensions, with the initial and most visible being the phase of conceptual generation.

At this stage, AIGC tools substantially broaden the scope of design exploration while compressing the time required for idea iteration. Through prompt-based instruction, designers can obtain a broad array of preliminary schemes in rapid succession, from which they may filter, refine, and progressively improve the most promising candidates. For Shenyang's Qing-themed cultural merchandise, such capabilities open up the possibility of traversing a much wider design space within a relatively limited timeframe-ranging from palatial grandeur to vernacular folklore, and from classical craftsmanship to restrained modernist interpretations. In doing so, this approach offers a viable pathway out of the persistent quandary of stylistic homogeneity. Some studies have pointed out that "artificial intelligence will reshape the mode of protection and inheritance of cultural heritage, injecting new vitality into the protection, inheritance, and innovation of cultural heritage."

At the level of cultural translation, AI technology offers new possibilities for the precise translation of cultural symbols. In traditional design, the transformation from cultural symbols to product forms heavily relies on the designer's personal qualities and accumulated experience, introducing considerable uncertainty. Developing an AI model specifically oriented toward Qing cultural heritage enables the system to acquire a refined grasp of the stylistic idioms, chromatic conventions, and compositional principles that characterise Qing-dynasty art and craftsmanship. This acquired knowledge, in turn, allows for a more rigorous and methodical cultural translation to be embedded within product design. A prior investigation, entitled "Exploring AIGC-based Cultural Product Design from a Peircean Semiotic Perspective," has supplied both a preliminary theoretical foundation and empirical evidence supporting this line of inquiry.

With respect to personalised customisation, AI renders mass personalisation technically achievable. Through AI-driven analysis of consumers' cultural predilections, aesthetic inclinations, and intended usage contexts, it becomes feasible to generate diversified design proposals tailored to individual profiles-thereby bringing about a "one-size-fits-one" model of bespoke cultural tourism merchandise. Such a paradigm not only bolsters the market responsiveness of these products, but also reinforces the affective resonance between end-users and the cultural IP in question.

3.3. Value Transformation of Cultural Tourism Scene Integration: From Product Sales to Experience Economy

The value proposition of cultural tourism derivatives extends beyond the transactional exchange of physical commodities. Rather, their potential is more fully realised when they are woven into a richer tapestry of cultural tourism consumption contexts, thereby signalling a strategic reorientation from product-focused commerce to experience-centric engagement.

Firstly, the construction of immersive consumption scenarios. Shenyang has preliminarily explored the practical path of immersive cultural tourism experience - leveraging the Fangcheng revitalization plan and other cultural and tourism integration practices, "successfully transforming historical heritage into immersive exhibitions creatively". On this basis, AI technology can be further combined with Qing cultural IP to create new scenarios such as AR guided tours, AI digital person explanations, and immersive digital art experiences. When consumers have deep interaction with Qing culture in immersive scenarios, cultural tourism derivatives are elevated from mere souvenirs to material extensions and emotional carriers of cultural experiences.

Secondly, there is innovation in the form of digital products. Under the "AI+IP" framework, cultural tourism derivatives are no longer limited to physical objects, but can be expanded to various forms such as digital collectibles, AI interactive products, and virtual clothing. For example, in the design of "Gongyu Chao Wan" by a student team, "the voice interaction is upgraded from 'being able to speak' to 'being able to communicate', triggering continuous

dialogue through wake-up words, combining screen emotion feedback with cultural narration mechanism." Integrating AI interaction capabilities into cultural tourism souvenirs represents an innovative approach that opens up new paths for the value transformation of Qing Culture IP. The cultural tourism souvenirs presented in digital form not only help reduce the resource consumption and cost pressure brought about by physical production, but also significantly expand the coverage and influence depth of cultural dissemination.

Thirdly, the entire value management process should be driven by the brand. Research indicates that "the new IP economy emphasizes full lifecycle operation, covering aspects such as content creation, image shaping, scene implementation, commercialization and iterative upgrading. This forms a closed-loop ecosystem." The operation of Shenyang Qing Culture IP should break away from the conventional mindset of "one-time development", and instead establish a comprehensive management system covering IP content production, product design and research, scene experience creation, and marketing promotion. In this chain, AI technology can play multiple supporting roles in data analysis, user profiling, precise marketing, and effect evaluation, providing data-driven decision-making basis for the continuous operation of the IP.

4. Conclusion and Prospects

Based on the "AI + IP" analytical framework, for Shenyang Qing Culture Cultural Tourism Derivatives to achieve dynamic inheritance and value transformation, the key lies in re-discovering the contemporary significance of cultural heritage. This article's analysis shows that the current obstacle restricting its development is not the lack of cultural resources, but rather the unsmooth transformation chain from "cultural resources" to "cultural IP" and then to "cultural value". The intervention of AI technology provides unprecedented technical support and efficiency improvement for this transformation.

The essence of "living inheritance" lies in integrating Qing culture into the daily lives of contemporary people, rather than merely preserving it in museum display cases. Through empowering IP construction, design innovation, and scene integration, AI enables Qing culture to more comprehensively, more intimately, and more diversely enter the public's daily spaces. The core of "value transformation" lies in establishing a long-term mechanism for the continuous transformation of cultural value into economic value and social value, so that Qing culture IP not only fulfills the mission of cultural inheritance but also possesses the internal driving force for industrial development.

Looking ahead, the development of Qing cultural tourism derivatives in Shenyang requires sustained efforts in the following directions: First, accelerate the construction of digital infrastructure for Qing culture, and establish a systematic IP database and AI training dataset for Qing culture; second, promote the deep integration of design education and AI technology, and cultivate design talents with cross-disciplinary abilities in "AI+culture"; third, build an open and collaborative industrial ecosystem, and encourage diverse entities to participate in the development and operation of Qing cultural IP; fourth, pay attention to cultural ethics and intellectual property protection, and adhere to the authenticity and integrity of cultural heritage in technology application. Only in this way can the Qing cultural tourism derivatives in Shenyang truly achieve a qualitative change from "symbolic conveyance" to "meaning recreation", and radiate new vitality and vigor in the era of deep integration of culture and tourism.

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