

Exploring the Path to Sustainable Development of Museums: A Case Study of Suzhou Museum





Promoting the sustainable growth of museums is a fundamental development principle in establishing a high-quality museum development framework. Since the 18th National Congress of the Chinese Communist Party, China has placed significant emphasis on the development of the museum sector and has made notable achievements in areas such as in areas such as museum construction and the preservation of cultural relics. However, a significant contradiction between the uneven and insufficient development of museums and the people's aspirations for a better life remains. Effectively addressing the challenges of museums' survival and development, as well as maximizing their social functions, has become a pressing concern within the current museum landscape. Exploring the path towards museums' sustainable development is a crucial approach to address these challenges. This article uses Suzhou Museum as a case study to analyze its endeavors in various aspects, including green development practices, fulfilling social functions, enhancing management standards, and digital transformation. This study provides a comprehensive overview of the measures implemented by the Suzhou Museum in its pursuit of sustainable development, presenting invaluable insights and empirical knowledge that can serve as a valuable reference for the sustainable development of museums.



SETTING THE STAGE FOR ADVANCEMENT

Global museums actively respond to the challenges of global climate change and provide valuable educational resources for local communities while also advocating for remedies to address social equity concerns. In 2015, the United Nations introduced the "2030 Agenda for Sustainable Development," a comprehensive framework comprising 17 Sustainable Development Goals (SDGs). These objectives are strategically designed to address global challenges, such as socio-economic disparity, environmental degradation and climate change, and other shared challenges. The essence of this agenda lies in its call for a concerted and international effort to eliminate poverty, safeguard the ecological equilibrium of the planet, and enhance the well-being and prospects of all individuals across the globe. Museums, operating as public institutions that combine the functions of preserving cultural heritage, providing leisure and entertainment, and delivering social services, share a significant and interconnected bond with the Sustainable Development Goals (SDGs). Museums play a crucial role in advancing sustainable development, serving as influential entities in addressing pressing concerns like climate change and biodiversity preservation through activities such as curation and knowledge dissemination. They offer a valuable avenue for specific beneficiary groups to access information and actively engage in addressing these paramount global challenges.

On August 24, 2023, the International Council of Museums (ICOM) officially announced a new definition for museums on its website: "A museum is a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage."

Given the growing prominence of global economic, environmental, and social challenges, this revised definition offers museums a distinct roadmap for their orientation and prospective growth. It highlights the imperative for museums to not only maintain ethical standards and meet professional criteria but also give precedence to inclusivity and accessibility, with a strong emphasis on fostering diversity and sustainability. Over an extended period of collaboration with the International Council of Museums, China's museum sector has actively engaged in reciprocal exchanges and cultural dialogue. The new museum definition not only aligns with the developmental needs of global museums but also holds significance for the advancement of museums in China.

Therefore, as a result of their commitment to a sustainable development strategy, Chinese museums are earnestly aligning their efforts with the objectives outlined in the SDGs. They take proactive measures to meet strategic requirements such as fostering shared prosperity, equitable provisioning of public services, and promoting environmentally friendly development. In doing so, museums play a pivotal role in advancing the effective attainment of sustainable economic, social, and ecological development within the country's borders. Starting from the 18th National Congress of the Chinese Communist Party, Chinese museums have witnessed ongoing advancements across a spectrum of dimensions, encompassing infrastructure development, cultural heritage preservation, collection research, exhibition presentation, public engagement initiatives, educational outreach, and international collaborations. Consequently, they have progressively assumed a prominent position and function as a central node in the global museum landscape. Nevertheless, it is important to acknowledge that the existing uneven and insufficient development of museums present substantial disparities with the populace's aspirations for an improved quality of life. Chinese museums also confront challenges such as comparatively inefficient energy utilization, the incomplete fulfillment of their societal roles, and constraints in generating revenue. Opportunities for refinement augmentation exist in domains such as strategic development, institutional framework, operational roles, and systemic mechanisms. In 2021, with the objective of advancing reforms and fostering the high-quality growth of China's museum sector, a collective effort involving nine governmental entities, including the National Cultural Heritage Administration, culminated in the issuance of the "Guidance on Advancing Museum Reform and Development" (关于推进博物馆改革发展的指导意见, 文物博发 (2021) 16号). This directive explicitly advocates for the proactive assimilation of the museum sector into the broader landscape of national economic and social development. It outlines the implementation of the "Museum+" strategy, aimed at fostering cross-disciplinary integration between museums and various domains, including education, technology, tourism, commerce, media, and design. The initiative aims to strengthen the integration and innovative synergy of museum resources, thereby further enhancing museums in terms of development focus, institutional framework, functional roles, and system mechanisms, thus paving the way for sustainability.

Against the backdrop of active international responses and proactive domestic initiatives within the museum sector, museums are continually leveraging their own capabilities to drive sustainable development. Among them, Suzhou Museum has emerged as an exemplary case study in the pursuit of sustainable development due to its innovative energy-saving and emissions

reduction measures, diverse construction and operational strategies, and efficient governance approaches. This article will use Suzhou Museum as a case study to analyze its innovative initiatives in the realm of sustainable development practices.

CASE STUDY ANALYSIS

The Suzhou Museum is one of the exemplary cases highlighted by the National Cultural Heritage Administration for its highquality development in the field of cultural relics. Established in 1960, the Suzhou Museum has a relatively short history. Nonetheless, Suzhou, renowned as one of China's historically and culturally vibrant cities, possesses an extensive and rich cultural legacy. Consequently, in spite of its relatively brief existence, the Suzhou Museum has been committed to acquiring, conserving, and exhibiting cultural and artistic treasures from the Suzhou region. It serves as a gateway for the public to explore Suzhou's culture and occupies a significant position in the development and preservation of cultural heritage in Suzhou's museum landscape. Amid opportunities and challenges in sustainable development, the Suzhou Museum has responded to the national call by actively embracing innovation. It continuously enhances the quality of exhibitions, promotes the development of cultural and creative industries, improves open services, establishes the Suzhou Museum education brand, and strengthens its organizational governance framework. These efforts have yielded valuable lessons for the sustainable development of museums in China and contribute to the advancement of high-quality cultural heritage development nationwide, as well as the establishment of globally acclaimed museums.

SUZHOU MUSEUM ARCHITECTURE EMBRACES HUMANISTIC ECOLOGICAL IDEALS, EXPLORES GREEN AND LOW-CARBON OPERATIONAL METHODS

Through the optimization of equipment operation and the development of an advanced management approach, the Suzhou Museum is actively pioneering the establishment of China's first carbon-neutral operating museum. Founded in 1960 and opened to the public in 2006, the Suzhou Museum initially encountered difficulties linked to high energy consumption and carbon emissions, primarily attributed to factors such as venue design and material choices. In 2021, China issued the "Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy." In accordance with this national policy, the Suzhou Museum embarked on the path to becoming the first carbon-neutral operational museum in China. With the support of the National Cultural Heritage Administration, the Suzhou Museum partnered with expert teams from universities and businesses. Together, they conducted a thorough assessment of the venue's equipment, materials, energy consumption, and carbon emissions. Subsequently, introduced energy-efficient they environmentally friendly technologies to establish a low-carbon, energy-efficient operational strategy. According to this strategy, the Suzhou Museum seeks to decrease its electricity consumption by 25% and enhance system efficiency by 20%, resulting in an estimated annual savings of nearly 1.5 million yuan. Concerning venue equipment, the Suzhou Museum has introduced fully variable-flow, high-efficiency cooling towers, replaced gas boilers with electric-driven heat pumps to eliminate direct carbon emissions, optimized control systems for primary and auxiliary equipment, implemented zone-based and timebased refined management, customized and finely tuned air

conditioning settings, and initiated the development of a digital control platform suitable for managing indoor energy, environmental conditions, and carbon emissions.



The Suzhou Museum's new wing combines Suzhou's architectural tradition with innovative, eco-friendly design, while having a strong commitment to achieving sustainable development that is both human-centered and environmentally conscious. In 2021, the Suzhou Museum's West Wing was completed and made accessible to the public. The new section preserves the color scheme of blue bricks and gray tiles, blending seamlessly with the architectural styles of the surroundings, serving as a prime example of regional architectural characteristics.In terms of wall materials, traditional wooden structures have been substituted with sturdier and contemporary alternatives, including lightweight steel frames and concrete. The roof is adorned with Suzhou's famous granite, preserving the area's traditional elements while presenting a seamless blend of tradition and modernity .Regarding the lighting, the new wing integrates ample glass skylights, permitting the ingress of natural light into the activity and exhibition spaces, surpassing the constraints associated with artificial lighting. Furthermore, the West Wing comprises ten interconnected box-shaped structures, optimizing the utilization of natural light and reducing the museum's energy consumption. The outdoor museum plaza is strategically designed to maximize the presence of green vegetation, fostering a favorable microclimate circulation. The architectural design of the Suzhou Museum's West Wing seamlessly blends the cultural traits of the Suzhou region with modern technology. It introduces innovations to traditional architectural elements, efficiently harnesses the natural surroundings, and prioritizes the preservation and advancement of cultural heritage. This approach elicits a sense of "cultural resonance" and "aesthetic consensus" among visitors, turning the museum building into a vital cultural and tourism asset. It plays a pivotal role in promoting regionalism in architecture and fostering the sustainable development of urban ecology and culture.

SUZHOÙ MUSEUM'S OPERATIONS SEAMLESSLY BLEND LOCAL CULTURAL CHARACTERISTICS, MAXIMIZING ITS SOCIAL FUNCTIONALITY

Through the innovation of exhibition content, the organization of educational activities, and the development of novel cultural formats, the Suzhou Museum provides a wide array of cultural services, effectively harnessing its social role. Following the guiding principle of "Establishing Jiangnan, Observing the World," (立江南,观世界) Suzhou Museum has conducted a series of scholarly exhibitions, including "The Four Prominent Schools of Wu"(吴门四家) and "Qing Dynasty Collectors of Suzhou"(清代苏州 藏家). Furthermore, it has initiated educational initiatives like "Suzhou Museum's Journey,"(苏博去旅行) allowing the audience to experience the allure of Suzhou's cultural refinement, narrate the tales of Jiangnan culture, and display the grandeur of global civilizations. In order to enhance its service to the public and fulfill its societal responsibilities, Suzhou Museum has continuously responded to the specific requirements of its visitors. It has introduced a range of self-guided tour options, such as apps and WeChat voice guides, enabling visitors to engage with the museum's collections through audio, text, visuals, and additional multimedia elements. This strategy unifies various museum components, elevating the overall visitor experience. Furthermore, Suzhou Museum has explored new cultural formats through IP licensing. In May 2020, the "Recovery - Nice to Meet You, Suzhou Museum" (复苏——幸会! 苏博) educational and cultural exhibition held at Shanghai Century Link Mall seamlessly integrated museum exhibitions, education, and cultural innovation. By incorporating various engagement methods, including exhibitions, digital interactions, workshops, and cultural markets, visitors could immerse themselves in the allure of Jiangnan culture. This approach not only unlocked fresh channels and markets but also generated increased publicity and exposure opportunities. It also explored innovative modes of interaction between museums and the public, contributing to the augmentation and expansion of the museum's influence. Through collaboration with diverse social entities, Suzhou Museum effectively maximizes its social role.

SUZHOU MUSEUM'S OPERATIONS COMBINED WITH INTERNET TECHNOLOGY TO ADVANCE MUSEUM DIGITIZATION

Suzhou Museum has embraced sustainable principles in its operational strategy and initiated a comprehensive digital transformation, resulting in an enhanced museum experience. In September 2021, the museum introduced the "Suzhou Colorful Life Pavilion"(苏色生活馆) within its West Wing. This pavilion centers around the themes of seasons and solar terms, drawing inspiration from traditional Suzhou folk culture. It employs extensive LED screens to construct an immersive digital environment, enabling visitors to vividly immerse themselves in Suzhou's lifestyle across various seasons and solar terms. This integration of technology enriches the visitor experience, attracts a larger audience, and reduces operational and content update costs. This innovative approach fosters the sustainable growth of Suzhou Museum and serves as a model for the digital advancement of museums in China. Furthermore, Suzhou Museum actively collaborates with digital technology companies to develop a digital cultural and museum experience platform that has its foundations in Suzhou's cultural heritage. In collaboration with 51WORLD, Suzhou Museum has successfully introduced an immersive digital rendition of the museum that seamlessly combines elements such as the museum's architecture and cultural artifacts. Within this digital platform, visitors can extensively delve into the museum's architecture, cultural relics, and garden art through narrative exploration and interactions with



NPCs, fostering a profound understanding of the museum's abundant cultural and historical legacy. In contrast to the digitization of exhibitions, the development of the digital cultural and museum experience platform transcends the conventional limitations of time and space associated with museum visits. It offers a means for a wider audience to actively immerse themselves in Suzhou's culture through online interactions, delivering an interactive and enduring cultural service platform accessible to diverse audiences and users. This initiative plays a pivotal role in expanding the impact and reputation of Suzhou Museum while establishing the brand identity of a "Cloud Suzhou Museum."(云上苏博)

SUZHOU MUSEUM ADOPTS A BOARD OF DIRECTORS SYSTEM IN MANAGEMENT AND ESTABLISHES A FOUNDATION TO FOSTER "SELF-SUSTAINING" FUNCTIONS

Through the implementation of a board of directors system and the establishment of a foundation, Suzhou Museum has improved the democratic and scientific nature of its decision-making processes. This approach has also broadened its funding sources and elevated the professionalism of fund management. The Suzhou Museum Board of Directors comprises 15 directors and 1 supervisor, who are chosen through a combination of appointment, election, and invitation. Notably, more than half of the directors, specifically 8 out of 15, are drawn from the wider community. This is a relatively rare practice among state-owned museums in China that have implemented the board of directors' system. Furthermore, the directors come from diverse sectors such as cultural heritage, finance, law, and corporate management, facilitating greater engagement of societal forces in the museum's growth. This establishes a systematic platform for exploring and utilizing resources, leveraging collective expertise to strategize various facets of museum operations.

Simultaneously with the formation of the board of directors, Suzhou Museum has established a foundation to nurture its "self-sustaining" functions. The existing capital base of the Suzhou Museum Development Foundation is entirely derived from society, encompassing contributions from individuals and corporations. This setup grants the foundation a degree of independence from direct reliance on government funding. To ensure professional, scientific, and effective management, Suzhou Museum has entrusted the development foundation to Suzhou Bank for administration. Suzhou

Bank, with the approval of the foundation's board of directors, invests the foundation's assets to achieve preservation and appreciation, thus providing sustainable support for Suzhou Museum's public projects related to artifact collection, preservation, research, exhibition, education, and more. Unlike traditional museums that primarily rely on donations from individuals for their collections, the implementation of a corporate governance framework and a dedicated foundation allows institutions like Suzhou Museum to more effectively embrace and incorporate a broader and more sustainable range of societal resources. This strategy also underscores the competitive advantage and attractiveness of Suzhou Museum and similar organizations within the sector.

CONCLUSION AND LESSONS LEARNED

Suzhou Museum combines the heritage of Suzhou's traditional local features with modern technology to preserve its cultural legacy while also fostering innovation in the region. Through a diverse range of development and operational activities rooted in Jiangnan culture, the museum leverages its Board of Directors and Foundation to gather resources from the market and nurture its self-sustaining abilities. These pioneering methods and practices provide fresh insights and valuable lessons for the growth of other museums.

Optimizing equipment operation strategies, balancing heritage preservation and development

Suzhou Museum integrates "cutting-edge technology and scientific innovation" with a "meticulous management approach." It conducts an analysis of energy consumption patterns and incorporates innovative energy-efficient equipment while setting up an intelligent museum management system. This results in a consistent advancement of environmentally friendly and low-carbon initiatives in both architectural design and operational practices. The museum's project implementations have led to the creation of adaptable and expandable technical guidelines and standards for energy conservation. This model sets a groundbreaking example for sustainable progress in museum architecture across the industry. Suzhou Museum's architecture seamlessly harmonizes with the unique characteristics of Jiangnan, traditional culture, and the natural surroundings.

It skillfully blends modern technology, resulting in a fusion of the past and present. This has established a significant cultural and tourism asset in the area, connecting with people on a deep cultural and aesthetic level. As a result, museums can creatively incorporate modern technology into their architecture or exhibits to narrate captivating stories of local cultural traditions. This approach effectively balances the preservation of heritage with growth, stimulating the local cultural and tourism sector, boosting the museum's long-term visibility, and supporting its sustainable development in the years to come.

Promoting diversity in cultural and creative endeavors and cultural dissemination, while fully harnessing their social functions

Combining the Jiangnan culture of the Jiangsu region, Suzhou Museum has embraced a wide range of cultural and creative endeavors and initiatives for cultural dissemination. These include self-guided exhibitions, tours, arrangements, and other innovative approaches to museum development. On one hand, this diverse array of cultural and creative ventures enhances the Suzhou Museum's visibility and acceptance among the public, catering to the unique preferences of its audience. On the other hand, the Suzhou Museum has expanded its collaboration channels and opportunities within these new development formats, accessing a broader cultural and artistic marketplace. Simultaneously, it has nurtured and motivated its staff and artists, contributing to the museum's full realization of its influence and social roles. Looking ahead, this will enable the museum to enhance its public service, foster sustainable growth, and establish mutually beneficial outcomes. This valuable experience serves as a model for other museums to study and adopt.

Promoting digital development and expanding operational management models

Leveraging the continuous advancements in digital technologies like 5G, the Internet of Things (IoT), and artificial intelligence (AI), Suzhou Museum has transformed its existing exhibition spaces into digital environments. Additionally, it has introduced innovative online interactive platforms, drawing a larger audience to the museum. On one hand, Suzhou Museum's adoption of digital technology frees visitors from the traditional limitations of time and location when exploring the museum's exhibits, enabling access from anywhere and at any time. This also reduces the prerequisites for cultural and artistic engagement, such as income and educational levels, thereby expanding the reach of cultural and artistic experiences to a wider audience. On the other hand, the utilization of digital technology empowers Suzhou Museum to present its rich cultural and artistic heritage in fresh and captivating ways, enhancing the overall visitor experience. This strategy serves as a blueprint for other museums seeking to achieve sustainable development, offering them valuable insights and inspiration.

Developing a corporate governance framework and enhancing financial management methods

Suzhou Museum has adopted a board of directors system and established a foundation. This strategy involves bringing professionals from various fields of society on board, which diversifies perspectives and resources for the museum, resulting in increased public and philanthropic support for its growth. By harnessing the functions of the board of directors, it effectively advances the reform of the legal governance structure within cultural and museum institutions.

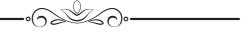
This includes enhancing the board's operational mechanisms, reforming personnel management and employment practices, and strengthening financial management capabilities. Actively enhancing the foundation's efficiency serves as an effective means to bridge funding gaps in the museum sector, optimize the museum's revenue sources, improve fund utilization efficiency, and offers a valuable model for the sustainable development of museums.

REFERENCES

- [1] Zhou Shen,Lv Chenxin. Sustainable museums: connotation, practice and construction path[J]. Chinese Museum,2022(04):57-62+127-128.
- [2] Xu Jiaman. Traditional Spirit of Regionalism Architecture—Taking the New Museum of Suzhou as an Example[J]. China Building Decoration and Renovation, 2020(01):98.
- [3] Crossing, integration and innovation from tradition to modernity[N]. China Heritage News, 2019-06-28(007).

[4]Chen Ruijin. Countermeasures for the development of museums after free opening--Taking Suzhou Museum as an example[J]. Museum, 2019 (05):132-136.

[5] Jiang Han, Yu Yingying. Exploration of the development of new business mode of cultural communication in museums under the IP authorisation mode—Taking Suzhou Museum as an example [J]. Museum, 2021 (02):47–51.



Translation: Daria Gerasimenko, International cooperation specialist at the International Institute of Green Finance, daria_gerasimenko@iigf.com.cn

Link to the original: https://mp.weixin.gg.com/s/AOilJNDjYDo3L_KYMpWm-A