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The Development Status and Strategy of International Communication in the Construction of Huai'an's Grand Canal Cultural

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Abstract

The Grand Canal stands as a pivotal emblem of Chinese civilization and serves as a core vehicle for narrating China's story and fostering mutual learning among civilizations. As the "Capital of the Canal," Huai'an bears a profound legacy encompassing the hub of grain transport, hydraulic engineering wisdom, and diverse folk customs. However, in the realm of international communication practices, it confronts realistic dilemmas such as insufficient resource integration, limited communication efficacy, and a lack of dynamic experiential depth. Building upon an analysis of the core components of Huai'an's Grand Canal culture—material heritage, intangible heritage, and ecological civilization—and drawing on the successful experiences of international canal cities, this paper proposes a "Resource + Platform + Technology" strategy for international communication. This framework aims to solidify the foundation of communication through the construction of a resource database, expand communication channels via a matrix of international communication centers, and activate cultural perception through digital immersive experiences. Supplemented by supporting mechanisms such as youth participation, precise storytelling, and cross-sectoral synergy, this strategy seeks to achieve a leap from "local knowledge" to "global narrative," thereby effectively enhancing Huai'an's international influence.

Keywords

Huai'an; Grand Canal Culture; International Communication; Development Status; Strategy

1. Introduction

In 2014, the Grand Canal of China was successfully inscribed on the World Heritage List. This 3,200-kilometer-long waterway is not only a geographical artery connecting the north and the south but also a living testament to the exchange of civilizations. In 2019, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "Planning

Outline for the Protection, Inheritance and Utilization of the Grand Canal Culture", elevating the construction of the Grand Canal Cultural Belt to a national strategy. In 2021, the National Cultural Park Construction Work Leading Group issued the "Planning and Protection Plan for the Grand Canal National Cultural Park", making the construction of the Grand Canal National Cultural Park an important historical and cultural symbol and a contemporary issue for the continuation of Chinese civilization. For canal cities, how to achieve international cultural dissemination on the basis of protection and inheritance, and turn the thousand-year-old canal into a "flowing bridge" connecting China and the world, has become an important task bestowed by the times.

Research on foreign canal cultural heritage started earlier and has shifted from the history of engineering technology to cultural communication studies. Cross-cultural comparative research has become a hot topic. The Chinese Academy of Cultural Heritage and the Italian National Research Council took the Grand Canal of China and the Appian Way of Italy as cases to explore the protection and dissemination mechanisms of linear heritage in different cultural backgrounds [1]. Tian Dexin systematically studied the path to enhancing the international image of the Grand Canal of China and proposed a model for shaping the national image through the protection and management of cultural heritage [2]. Gong Yueqing and Zhou Xinrong, taking the Beijing Grand Canal as a case, systematically sorted out the successful experiences of international typical canals in brand building and cultural trade, and summarized the core mechanisms in cultural narrative, institutional support, creative industry clusters, and digital governance, providing a reference for local practice [3]. Zhang Zuguang conducted a quantitative analysis of the literature from 2014 to 2024 and proposed that the Grand Canal National Cultural Park could be disseminated around the "cognition-emotion-value" framework [4]. At the level of communication strategies, the academic community pays attention to digital transformation, pointing out that the application of technologies such as VR and AR is insufficient, making it difficult to form immersive experiences [5, 6].

The Grand Canal of China, including the Beijing-Hangzhou Grand Canal, the Zhejiang East Grand Canal, and the Sui-Tang Grand Canal, has the Beijing-Hangzhou Grand Canal as the longest and largest in terms of engineering. Unlike the Panama Canal and the Suez Canal, which are international strategic sea channels, the Beijing-Hangzhou Grand Canal was mainly used for grain and salt transportation in China's past dynasties. Due to its intermittent navigation and subsequent reopening, its international recognition is relatively limited. Huai'an is located in the middle of the Beijing-Hangzhou Grand Canal, at the confluence of the Yellow River, the Huai River, and the Grand Canal, and is known as the "Gateway of Nine Provinces" and the "Gateway of South Boats and North Horses". It is home to six World Heritage sites, including the Qingkou Hub, Shuangjin Weir, Qingjiang Weir, Hongze Lake Dike, the Ruins of the General's Office of the Grand Canal Transport, and the Ruins of the

Board Gate Customs, as well as rich intangible cultural heritages such as canal folk customs, Huaiyang cuisine cooking techniques, and canal work songs. However, the abundance of resources does not necessarily translate into communication advantages. Liu Bangkun once proposed that Huai'an should seize the opportunity of the Grand Canal's application for World Heritage status to build the brand of "Canal Capital" and promote the integrated development of canal culture and tourism [7]. Zhou Xiao, through field investigations and interviews, found that the city brand image of Huai'an in communication has problems such as homogenization, fragmentation, and lack of experience. From the theoretical perspective of regional culture and city brands, Huai'an should start from building a readable city, creating city IPs, and integrating communication models to tell the story of a canal city and promote the dissemination of the city's brand image [8].

In summary, existing research is more macroscopic, and the regions of communication are mostly limited to within the country. Systematic international communication strategies for Huai'an's canal culture remain a blank. From the perspective of international communication, this article systematically sorts out the core communication content of Huai'an's Grand Canal culture, diagnoses the current practical predicaments, draws on the mature experiences of international canal cities, and attempts to construct a three-dimensional collaborative communication strategy framework of "resources + platforms + technology", supplemented by corresponding implementation paths, with the aim of providing theoretical references and practical guidance for the international communication of Huai'an's Grand Canal culture.

2. Core Content of International Communication of Huai'an's Grand Canal Culture

Grand Canal cultural heritage integrates cultural elements with natural elements, representing a cultural space co-constructed by material and intangible factors and presented through the synergy of dynamic and static forms. As a dense area of canal heritage, Huai'an's international communication should focus on three core dimensions: the "visibility" of material heritage, the "perceptibility" of intangible heritage, and the "resonance" of ecological civilization.

2.1. Material Heritage

The material heritage along Huai'an's Grand Canal section is, first and foremost, physical evidence of human hydraulic wisdom. Taking the Qingkou Hub as an example, this key project from the Ming and Qing dynasties managed the convergence of the Yellow, Huai, and Canal rivers. Through the water control strategy of "storing clear water to flush out yellow sediment and constricting water flow to attack sand," it exemplifies the sophistication of traditional Chinese hydraulic science. The Hongze Lake Dyke, extending for a millennium, features stone

retaining walls and water-reduction dams that continue to function in flood control and water storage today. Standing atop the Hongze Lake Dyke and touching the stone blocks carved with the names of craftsmen, one seems to feel the warmth of the struggle between water controllers and floods from centuries ago. These hydraulic projects are not only crystallizations of technology but also products of a continuous dialogue between humanity and nature.

Secondly, there are historical remnants of the grain transport system. The site of the Governor-General's Office of Grain Transport bears witness to Huai'an's glory as the "Granary of the World," while the Bazha Customs Office Site records the operational details of the canal taxation system. The institutional civilization carried by these sites serves as an important window for understanding the governance capabilities of ancient China. When international audiences face these material remains, they see not just stones and bricks, but the governance wisdom and engineering philosophy of an ancient civilization.

Along the Huai'an section of the Grand Canal, there are six World Cultural Heritage sites, eleven provincial-level cultural relics protection units, and four characteristic relics, covering four major types: hydraulic facilities, ancient town settlements, religious architecture, and marketplace ruins. These heritage sites, like scattered pearls, collectively constitute the chain of material evidence establishing Huai'an as the "Capital of the Canal," providing a solid visualizable foundation for international communication.

2.2. Intangible Heritage

The intangible dimension of Huai'an's Grand Canal culture presents a rich tapestry interweaving "production, life, and belief." Grain transport folklore is the most distinctive cultural form: the grain transport gangs, composed mainly of boatmen, had strict rules and unique rituals, reflecting the lifestyle and values of specific occupational groups. The "Mao Hour Market" in Hexia Ancient Town continues the ancient tradition of trading goods from north and south; at 4:00 AM, in front of the fried dough stick stalls, old Huai'an residents start their day with a bowl of spicy soup. This "smoke and fire" (a metaphor for the hustle and bustle of daily life) is the most vivid footnote to the canal. While these customs appear local, they carry universal human experiences—labor and rest, exchange and interaction, order and freedom.

Traditional crafts represent another communicable cultural resource. Huaiyang cuisine cooking techniques blend flavors from the north and south, with Wenlou Soup Dumplings becoming a cultural symbol of canal dining—the moment crab roe soup bursts forth after gently piercing the skin with a straw creates a resonance of taste that transcends language. Canal work songs change tune according to the labor scenarios of boatmen; lock operation songs and towing songs each have their unique characteristics, forming an auditory epic of labor. The craftsmanship of canal

boat construction is exquisite, carrying the wisdom of ancient shipbuilding industries. These crafts possess the potential for communication beyond language barriers—taste and hearing are sensory languages common to all humans, making them more likely to trigger cross-cultural resonance than abstract textual narratives.

2.3. Ecological Civilization

The contemporary value of Huai'an's canal culture is also reflected in the dimension of ecological wisdom. The Hongze Lake Dyke and the wetland systems along the route constitute a unique aquatic ecological pattern, a "cultural landscape" formed through long-term interaction between humans and nature. This landscape not only carries historical memory but also performs realistic ecological functions—flood regulation, water purification, and biodiversity maintenance. Every winter, tens of thousands of migratory birds stop over in the Hongze Lake wetlands; the silhouette of bird flocks sweeping over the dyke becomes the most vivid visual symbol of the ecological canal.

In an era where global climate change and sustainable development have become shared concerns, the communication of canal ecological civilization holds special significance. The 2024 Asia-Europe Canal City Index shows that in the ecological dimension, European canal cities lead overall, presenting a global pattern of diversity where "each beauty finds its beauty, and all beauties share in harmony [9]." Development experiences from international canal cities indicate that canals are not merely historical heritage but also the lifeblood of future sustainable cities—promoting low-carbon transport, reducing environmental pollution, and providing cultural and leisure spaces. Huai'an's canal ecological practices, such as the construction of the "Hundred-Mile Gallery" of the Grand Canal and comprehensive water environment governance, can engage in dialogue with the global sustainable development agenda, transforming local experience into shareable global knowledge.

3. Realistic Dilemmas in the International Communication of Huai'an's Grand Canal Culture

Despite possessing unparalleled Grand Canal cultural resources, Huai'an still faces multiple constraints in its international communication practices.

3.1. Insufficient Resource Integration

Grand Canal cultural heritage is rich in connotation, involving material forms such as ruins and memorial sites, intangible forms such as rituals, performances, and literature, as well as cultural spatial forms including water conservancy, shipping, commerce, and diet. Due to the diversity of the canal's functions and values, the management of canal heritage is objectively dispersed across multiple departments

such as shipping, water conservancy, cultural relics, culture, and tourism. This "nine dragons ruling the water" (fragmented management) situation results in a lack of a unified coordination mechanism for heritage protection and communication. Specifically, although Huai'an possesses six World Cultural Heritage sites, it lacks a comprehensive platform reflecting canal cultural heritage. Currently, only a few locations like the Qingkou Hub are equipped with World Cultural Heritage signage; many other important sites and relics lack unified identification. When international tourists visit the vicinity of the Bazha Site, without a professional guide, they are likely to miss historical fragments scattered among residential houses. The construction of online tour guide resources is also notably insufficient, leading to a situation where there are many heritage sites but no scale effect. For international audiences, facing scattered heritage points without guidance on the overall context makes it difficult to form a systematic understanding of Huai'an's canal culture. The lag in building resource databases also means there is a lack of foundational support for information sharing and collaborative communication across departments and fields.

From an institutional arrangement perspective, coordination and systematization among various implementing entities are inadequate. Attitudes towards the construction of the Grand Canal Cultural Belt and international communication work vary significantly across regions and departments; some view it solely as the responsibility of cultural and relic departments, resulting in low participation from other relevant sectors. Additionally, participation from civil groups and non-governmental organizations is low, limiting their role. In reality, these informal forces have not yet been effectively mobilized. Several canal culture enthusiasts are active locally in Huai'an, spontaneously telling canal stories on online platforms, but these grassroots voices have not yet been effectively integrated into the official communication system.

3.2. Limited Communication Efficacy

It is worth noting that there is a serious problem of homogenization in the current methods of inheriting the Grand Canal's cultural heritage. The cultural and tourism products of the Grand Canal in various cities along the river are highly similar, lacking cultural distinctiveness and failing to achieve the goal of strengthening cultural dissemination [10]. Currently, some digital projects only remain at the level of "digital presentation" without delving into the cultural connotations. Digital exhibitions are limited to display and annotation, and drone aerial photography does not incorporate cultural elements, making it difficult for the public to understand the historical significance behind the heritage. This model that emphasizes technology over culture has turned digital achievements into cold digital specimens, making it hard for the public to develop a deep cultural identification.

The digital inheritance of the Huai'an section of the Grand Canal also suffers from the problem of homogenization with other sections of the canal, failing to fully integrate local core features such as "the hub of canal transportation" and "water conservancy wisdom" to design differentiated plans. For instance, when tourists scan the AR guide in front of the Qingjiang Weir with their mobile phones, they only see a generalized diagram of the weir structure instead of the awe-inspiring scene of the boatmen pulling the boats through the weir in the past. When the content of the dissemination lacks regional distinctiveness, international audiences will find it difficult to remember Huai'an among numerous canal cities.

3.3. Thin Dynamic Experience

As a "living heritage", the charm of the canal cultural heritage lies in its continuous interaction with contemporary life. However, in Huai'an, the display of canal heritage is currently more focused on sites, relics and stories. The integration of canal cultural heritage as a living heritage into social life is not high, and its connection with current work, life and modern spirit is not close enough.

The thinness of the living experience is also reflected in the insufficient development of routes. Currently, the cruise routes that reflect the transportation characteristics of the canal are still relatively limited, and the main research and study routes based on the footprints of famous people and literary masterpieces need to be expanded. For international tourists who pursue in-depth experiences, shallow sightseeing is difficult to meet their needs for cultural immersion.

In terms of communication effects, the current communication of the Grand Canal Cultural Belt still relies on products and activities to form a materialized, solid and activity-oriented approach. However, it is still very lacking in stimulating the audience's inner feelings, group emotions, and regional or even national cultural symbols and symbolic meanings. The direct consequence of this kind of communication is that people may see a product, visit a scenic spot or participate in an activity, but they still have no concept of the Grand Canal, let alone develop a sense of identification and belonging.

4. Lessons from the Cultural Communication of International Canal Cities

Canals are not unique to China. Globally, there are approximately 1,100 canals gathering over 3,000 canal cities. These international canal cities have accumulated rich experience in cultural heritage protection and communication, offering valuable lessons for Huai'an.

4.1. Ecological Priority: The Green Narrative of European Canal Cities

European canal cities are at the forefront of ecological protection and green transformation. The 2024 Asia-Europe Canal City Index shows that European canal

cities lead overall in the ecological dimension. Taking Temse, Belgium, as an example, the city views the canal as "not only an artery for trade and transport but also an important component of cultural inheritance, ecological sustainability, and community life." Local communities regularly organize "Canal Cleaning Days," where residents paddle small boats to collect floating debris, and children paint long scrolls of canal ecology on the banks. This kind of 全民-participation (all-people participation) ecological practice makes canal protection a perceptible part of daily life.

The core of the European experience lies in expanding the canal from a mere "historical heritage" to the "lifeblood of future sustainable cities." In the context of global climate governance, the ecological function of canals is endowed with new contemporary value—promoting low-carbon transport, reducing environmental pollution, and providing cultural and leisure spaces. Chen Anqi, a member of the Brussels-Capital Region Parliament, pointed out: "The canal is not only a historical heritage but also the lifeblood of future sustainable cities. It connects the past and the future, blending ecology and humanities. Talking about canals is discussing a more inclusive, greener, and smarter urban living model, which is also one of the important paths for us to address global climate change and achieve the UN 2030 Sustainable Development Goals." Such green narratives can effectively align with the shared concerns of the international community, integrating canal cultural communication into global issues.

4.2. Youth Participation: Canal Walk Action

The World Canal Cities Canal Walk Action is a highlight case in international canal cultural communication in recent years. Guided by the concept of "Canals Connect the World" and driven mainly by youth, this action promotes interconnectivity and sustainable development among global canal cities through "walking." By 2025, the action has attracted youth participation from over 70 countries, landed more than 50 events in over 30 core canal cities, covered over a million Chinese and foreign young people, received reports from more than 500 media outlets globally, and achieved over 500 million global exposures[11,12].

The core inspiration of the Canal Walk Action lies in transforming youth from "audiences" into "communication subjects." The special documentary Canals Connect the World takes "Youth, Let Canals Connect the World" as its soul line, recording the diverse ways global youth groups interact with canals—whether cycling and jogging along the canal banks, or engaging in water sports and boating exploration. Young people are no longer bystanders of history but have become participants and continuers of canal stories. During an event in Brussels, a young man from Congo created a canal rap in his native language, intertwining his hometown's river memories with his European canal experience. This participatory communication can break through the traditional one-way output model, allowing

culture to flow naturally through experience and sharing.

4.3. Digital Empowerment: From Technical Application to Experiential Innovation

International canal cities have also accumulated rich experience in the application of digital technologies. During the 2025 China- Belgium Canal City Cultural Exchange Dialogue event, digital empowerment of canal culture and tourism became one of the core topics [13]. The Yangzhou China Grand Canal Museum recreated historical scenes through virtual reality, overlaid cultural information through augmented reality, and extended the boundaries of cultural and creative products through digital collections. The practice of the Grand Canal Museum demonstrated that digital technology can not only be used for heritage protection but also activate cultural and tourism experiences [14].

The higher level of digital empowerment is to build a "experience - creation - feedback" loop, allowing the public to shift from passive reception to active participation. The "immersive AI Intangible Cultural Heritage Experience Intelligent Terminal" launched in Linping, Hangzhou, provides a vivid example for this [15]. This terminal uses the national intangible cultural heritage of the rolling lantern, with an 800-year history, as the experience content. Citizens and tourists do not need expert guidance; they can simply follow the digital technology-based video decomposing the skills on the screen to make their own bamboo-woven rolling lanterns. During the experience, the terminal captures real-time user operations through high-definition cameras. The multimodal large model combines the standards of intangible cultural heritage techniques with multiple modalities to accurately identify details such as the placement sequence and winding angle of the bamboo strips. Once there is a misalignment or incorrect sequence, the system immediately issues an AI voice reminder and informs the correction method. After the creation is completed, the terminal automatically generates an exclusive experience report based on the accuracy of the technique, the completeness of the steps, etc., and clips the entire creative process into a Vlog for the experiencer to forward to social platforms with one click.

4.4. Narrative Strategies: Localization and Precision

Cross-cultural communication does not mean "whatever is ethnic is global"; rather, national art requires overseas communication with international thinking, leveraging local institutions to improve channel accessibility and content acceptability. Successful experiences from international canal cities indicate that in the international communication of the Grand Canal Cultural Belt, it is necessary to strengthen Sino-foreign cooperation, adopt an open and diversified international vision, and strive to avoid the limitations of talking to oneself.

In terms of communication content, it is essential to reflect the ethnic characteristics

and unique charm of Grand Canal culture while maintaining an international vision and adopting internationalized expression methods. Lyon transformed its historical narrative of the "Silk Capital" into a contemporary story of a "Creative City," successfully attracting the attention of the global creative class[16]. This narrative strategy of transforming local characteristics into universal values is worth Huai'an's reference.

5. "Resource + Platform + Technology": A Three-Dimensional Collaborative International Communication Strategy

Based on Huai'an's endowment of canal cultural resources and realistic dilemmas, and drawing on the successful experiences of international canal cities, "Resource + Platform + Technology" international communication strategy framework has been proposed. These three elements support and reinforce each other: resources are the foundation of communication, platforms are the channels, and technology is the engine.

5.1. Solidifying the Resource Foundation: Constructing a Canal Cultural Heritage Database

Addressing the issue of insufficient resource integration, the primary task is to construct a systematic canal cultural heritage resource database. It is suggested that the Huai'an Grand Canal Office take the lead in organizing a special working group, coordinating with departments such as water conservancy, shipping, culture and tourism, and commerce. Historical and cultural experts should be hired to comprehensively summarize and sort out existing Huai'an canal cultural heritage and related historical materials. This work should not stop at dry entry registration but should be like compiling a family tree, establishing an "identity file" for every heritage site—every reconstruction of the Qingkou Hub, every copper coin unearthed at the Bazha Site, and every canal ballad sung by the elderly in Hexia Ancient Town should be included in the database.

The construction of this database should follow the principles of "searchable, interpretable, and communicable." The term "Searchable" mainly refers to the exploration of establishing an online query function for the heritage resources of the Grand Canal. "Interpretable" involves deepening the excavation of cultural connotations based on data collection, forming an interdisciplinary team comprising canal culture scholars, historical experts, and technical personnel to construct a multi-dimensional cultural interpretation system from dimensions such as grain transport history, hydraulic wisdom, and commercial folklore. "Communicable" entails transforming database content into communication materials adapted for different platforms, providing content support for subsequent international communication.

The completion of the resource database will connect scattered heritage points into

lines and weave lines into surfaces, providing international audiences with a systematic guide to entering Huai'an's canal culture. On this basis, hand-drawn maps of Huai'an's canal cultural heritage can be further produced, identification systems designed holistically, explanation resources organized, and online explanation methods such as QR codes gradually implemented at canal cultural heritage sites to enhance the coverage and penetration of promotion.

5.2. Expanding the Platform Matrix: From "1+19" to Global Synergy

Huai'an has established an "Discover Huai'an" social media account matrix with the main account as the core and 19 sub-accounts with differentiated layouts on overseas social media platforms. By the end of 2025, this matrix has cumulatively published over 1,000 posts, has 250,000 followers, received over 150,000 interactions, and has achieved over 3 million exposures[17]. This is an important foundation for Huai'an's international communication, but it still needs to continuously expand in terms of breadth and depth.

On one hand, the breadth expansion refers to strengthening the linkage with global communication platforms. Huai'an should actively participate in international activities such as the World Canal Cities Forum and the China-Belgium Canal Cities Cultural Exchange Dialogue, leveraging international platforms such as the World Canal Historical and Cultural Cities Cooperation Organization (WCCO), and by holding brand activities with local characteristics, cultural connotations, and market influence, such as canal-themed exhibitions, performances, and folk customs, to expand the international visibility of communication channels.

On the other hand, the depth expansion refers to the precise narrative targeting different audience groups. For overseas Han scholars who deeply study Chinese culture, specialized academic content can be developed; for the dynamic international youth group, the canal culture symbols should be ingeniously integrated into modern popular contexts, such as transforming the case of ecological wisdom protection of Hongze Lake Wetland into an environmental protection task in an interactive game, allowing young players to naturally perceive the value of its sustainable concept in an immersive interaction; for international friends visiting Huai'an, the "Foreigners in Huai'an" series reports can be deepened, telling the canal stories from the perspective of foreign individuals. Precise communication can effectively reduce "cultural discount", allowing audiences from different cultural backgrounds to find resonance in the Huai'an canal culture.

The Huai'an International Communication Center has already achieved preliminary results in this direction. The Chinese Consulate General in Strasbourg, France, officially reposted the documentary "Foreigners in Huai'an," precisely reaching the core audience group in the European French-speaking region; the post's interaction volume exceeded 10,000, effectively stimulating European public interest in Huai'an's unique canal culture and tourism resources.

5.3. Activating the Technology Engine: Digital Immersion and Interactive Experience

Digitalization is the key engine for activating the living inheritance of canal culture. Addressing the current issue of "valuing display over interaction," technological empowerment should be advanced from three levels.

First, create differentiated immersive experiences. Focusing on Huai'an's characteristics of "grain transport hub" and "hydraulic wisdom," develop digital products with regional distinctiveness. A "Grand Canal Huai'an Section Digital Museum" can be created via new media communication platforms to revitalize the utilization of Grand Canal Cultural Belt resources. AR guides can break through conventional explanations by developing "immersive interactive grain transport scene" functions. When tourists stand before the Qingjiang Sluice and raise their phones, the screen will not only display the sluice structure but also restore the historical scene of grain boats passing through the lock during the Daoguang reign: the sound of trackers bowing their backs and chanting work songs, the sound of water flowing as the lock opens, and the hawking of vendors on the bank intertwine, instantly transporting tourists back to that busy era.

Second, construct participatory interaction mechanisms. Add a "Customize Grain Transport Route" function in AR guides to support users in sharing personalized tour routes; develop a "Canal Culture Co-creation" platform to encourage users to upload creation content related to the canal—be it a mobile phone shot of the canal morning scenery, an impromptu poem, or a sketch of Hexia Ancient Town. Excellent works can receive display and incentives. Through the closed-loop design of "Experience-Creation-Feedback," the public is stimulated to shift from passive viewing to active creation. During the Hongze Lake Hairy Crab Festival, Huai'an created an immersive VR live streaming experience. Audience members wearing VR devices feel as if they are by the sparkling Hongze Lake, watching fishermen catch hairy crabs and professional chefs cook crab feasts up close. 1.2 million global users "cloud-tasted" Huai'an cuisine via online platforms, and related topics topped hot lists on multiple overseas food platforms.

Third, advance cross-media synergistic communication. Build a "Central Digital Platform + Multi-media Distribution" system, open up data interfaces for domestic and overseas social platforms, and produce communication content adapted for different platforms—such as "Understand Grain Transport in 30 Seconds" short videos for TikTok and "Canal Heritage Puzzle" interactive videos for Bilibili. Constructing a cultural communication system of "Short Video + Live Streaming + VR" can achieve multi-channel content reach and expand communication coverage.

5.4. Supporting Implementation Pathways

The effective implementation of the "Resource + Platform + Technology" strategy requires the support of accompanying implementation pathways.

① Deepen Youth Participation Mechanisms

Drawing on the experience of the Canal Walk Action, place youth at the core of international communication. Huai'an has actively explored in this direction: starting in January 2025, it organized the event "Chinese Spring Festival, World Intangible Heritage, Foreigners Celebrating New Year in Huai'an," allowing international students to deeply experience the Spring Festival. Aliya, a student from Kazakhstan, made tangyuan for the first time; although the shapes she pinched were crooked, she excitedly filmed a video to send to her family: "Look, this is the Chinese moon I made!" These real and vivid moments constitute the most infectious communication content. Cumulatively reaching over 500,000 domestic and overseas audience members, with nearly 10,000 overseas live stream viewers; in June 2025, the "'This is Huai'an' Gen-Z Journalists from China and Foreign Countries Visit Huai'an" event was organized, inviting young media reporters and self-media influencers from over 10 countries to visit and experience characteristic spots in Huai'an[18]. The main video of the event was reposted by the spokesperson account of the Chinese Ministry of Foreign Affairs. These practices indicate that Generation Z, as "digital natives" and "global citizens," possess the characteristic of "learning by doing," making them ideal subjects for civilizational dialogue—their personally completed works become "social currency" triggering the desire to share, and vivid scenes of cultural exchange are shared via their own social media, forming a highly infectious authentic narrative.

② Construct a Precise Narrative System

Design differentiated narrative strategies for different audience groups. For East Asian audiences, focus on awakening a sense of cultural kinship—compare Huaiyang cuisine with fermentation traditions and food etiquette cultures in Japanese and Korean diets to find common cultural genes. For the mainstream society in Europe and America, creatively seek emotional connection points—transform "grain transport hub" into "ancient logistics management centers" and "hydraulic wisdom" into "ancient hydraulic engineering technological innovations," making core concepts easier for international audiences to understand. In terms of communication methods, it is necessary to enhance online promotion capabilities, innovate marketing promotion methods, enrich the connotation of festival activities, and expand domestic and international influence.

③ Strengthen Cross-Sectoral Synergy Mechanisms

Promote collaboration among government, enterprises, and academia, incorporate the construction of the Grand Canal Cultural Belt into the international communication strategy, and establish special funds to support cultural digitalization projects. Encourage cultural tourism enterprises to develop new cultural products such as the "Canal Metaverse." Collaborate with universities to conduct research on "Canal Culture Communication in the Era of Intelligent Media" and cultivate composite international communication talents. Huaiyin Institute of

Technology and the Huai'an International Communication Center have successfully signed a strategic cooperation agreement, jointly establishing the "Huaiyin Institute of Technology International Communication Practice Center," creating a new paradigm of school-media synergy and constructing a full-chain ecosystem of "Content Production - Talent Incubation - Global Communication."

In the selection of communicators and communication channels, localized promotion should be carried out according to local conditions. Leverage the influence of existing cultural associations, industry associations, and alliances in other countries to cooperate with these institutions in promoting canal culture. Establish liaison points for the promotion of Chinese Grand Canal culture overseas, establish close contacts with local cultural circles, and utilize third-party or localized institutions to create conditions for Chinese culture to "go global" and take root and blossom locally.

6. Conclusion

The Grand Canal is a flowing epic, a dialogue of civilization traversing time and space. As the "Capital of the Canal," Huai'an bears the glory of a thousand years of grain transport and also shoulders the mission of cultural communication in the new era. Facing the realistic dilemmas of insufficient resource integration, limited communication efficacy, and thin dynamic experiences, only by integrating resources with a more open vision, expanding platforms with more innovative thinking, and activating experiences with more cutting-edge technology can Huai'an's canal culture surge forward in the waves of international communication.

The "Resource + Platform + Technology" communication strategy is not only a deep excavation of Huai'an's advantages in canal cultural resources but also a creative reference to the successful experiences of international canal cities. Its profound pursuit lies not in one-way "cultural export" but in building a bridge that crosses national borders and connects hearts—allowing people of different skin colors and languages to find resonance in the stories of the canal and feel the connectivity of human civilization in the flowing water veins.

Looking to the future, the international dissemination of Huai'an's Grand Canal culture can be further deepened in the following directions.

First, deepen cooperation with international organizations, leveraging platforms such as the World Canal Historical Cities Cooperation Organization to bring Huai'an's canal culture into the global spotlight. By leveraging the radiation effect of Yangzhou as the "World Canal Cultural Capital", explore Huai'an's significant position in the Silk Road, Porcelain Road, Tea Road, and Salt Road, and enhance the radiating power of the central cities of the Grand Canal cultural belt.

Second, expand the boundaries of digital applications and explore innovative applications of artificial intelligence-generated content (AIGC) in canal culture dissemination, such as using NLP technology to analyze canal documents and folk

legends and generating narrative frameworks suitable for international dissemination.

Third, strengthen the contemporary transformation of the canal spirit, deeply integrating the open and inclusive canal cultural genes into the construction of Huai'an's Hub New City. Through the operation of the ecological and leisure cultural tourism industrial chain along the canal, develop a number of canal cultural creative towns. Using market-oriented means, industrialization process, and an international perspective, create a leisure tourism industrial belt for towns along the Grand Canal, achieving the integration of canal culture and economy, and revitalizing the linear and dynamic heritage corridor of the Grand Canal in Huai'an section.

Funding

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

[1] Yu Bing. Chinese and Italian Heritage Experts Jointly Study the Grand Canal and the Appian Way [N]. China Review News, 2022-11-14.

[2] Tian Dexin. Research on the Path to Enhance the International Image of the Grand Canal in China [M]. Xi'an: Xi'an Jiaotong University Press, 2024.

[3] Gong Yueqing, Zhou Xinrong. Brand Building and Cultural Trade Development of the Grand Canal in Beijing: Practical Transformation of International Canal Experience [R]. China Grand Canal Development Report (2025). Beijing: Social Sciences Academic Press, 2025.

[4] Zhang Zuqun, Wang Ying, Qi Yijun, Wang Yuxing. Development Report on the Protection, Inheritance, and Utilization of the Grand Canal Heritage in the Decade Since Its World Heritage Application [R]. China Grand Canal Development Report (2025). Beijing: Social Sciences Academic Press, 2025.

[5] Yan Chang. The Active Protection and Utilization of Intangible Cultural Heritage of the Grand Canal [J]. Journal of Hainan Normal University (Social Sciences Edition), 2020, 33(03): 136-140. DOI: 10.16061/j.cnki.cn46-1076/c.2020.03.020.

[6] Li Xiao, Xu Han. Digital protection and Communication strategy of industrial building remains in Zhenjiang Section of Grand Canal[C].2020 International Conference on Innovation Design and Digital Technology (ICIDDT). IEEE, 2020: 596-599.

[7] Liu Bangkun. Thinking about Canal Culture Tourism of Cities along the Canal —Take Huai'an as an Example [J]. Journal of Huaiyin Teachers College（Social Science）, 2013, 35(02): 212-217 + 280.

[8] Zhou Xiao. Analysis of Brand Image Communication of Canal Cities from the Perspective of the Grand Canal National Cultural Park: A Case Study of Huai'an's "Canal Capital · Hundred-Mile Gallery" Brand [J].Audio-Visual,2022, (11): 155-157. DOI: 10.19395/j.cnki.1674-246x.2022.11.039.

[9] 2024 Asia-Europe Canal City Index [EB/OL]. School of Culture and Tourism, Zhejiang International Studies University, 2025-11-09. http://wlxy.zisu.edu.cn/info/1050/10657.htm

[10] Zhang Wei, Fan Peipei, Ma Lan. The Development and Strategy of International Communication in the Construction of Grand Canal Cultural Belt: Taking Jiangsu Section as an Example [J]. Journal of Nanjing University of the Arts (Fine Arts and Design), 2019,(2): 73-77.

[11] Hu Anhua. Continuous "Canal Walk" Highlights the Diverse Cultural Charm [N]. China City Daily, 2025-05-12(024).

[12] Zhao Huiying .From Teenage Cyclist to Canal Ambassador——Exploring Cheng Hao's Cultural Journey With Canal Walk[J]. China News Release (English Edition), 2025, (03): 48-53.

[13] 2025 China-Belgium Cultural Exchange Dialogue Event Held [EB/OL]. China News Network, 2025-09-18.

[14] Wu Lei, Wang Yihuo, Wu Bei. The Formation Mechanism of Tourists' Presence in Digital Immersive Scenarios: A Case Study of the China Grand Canal Museum in Yangzhou [J]. Journal of Central South University of Forestry & Technology(Social Sciences), 1-12 [Online first publication time : 2025-10-23]. https://link.cnki.net/urlid/43.1478.F.20251022.1407.006.

[15] Today's Linping. AI Revitalizes Ancient Skills, Digital Intelligence Lights Up Linping's Intangible Cultural Heritage [N]. 2026-02-27. https://www.linping.gov.cn/col/col1229520462/art/2026/art_426961a68f80407995ceeaf532e2c1e5.html

[16] Charles Ambrosino, Vincent Guillon. Creative Cities: A French Perspective [J]. International Urban Planning, 2012, 27(03): 49-53.

[17] Hu Weiwei. Discovering a More Beautiful Huai'an [EB/OL]. Huai'an Publicity, 2025-11-07. https://mp.weixin.qq.com/s?__biz=MzIwMjg5NzY2Nw==&mid=2247727365&idx=1&sn=54cbeed78ce1d81a445ae5b39b26726b&chksm=976d13e5ba3bb5f97084c904384c2ef1d97976a31a1dea1c8fe22e5da06842179e72782094e1&scene=27

[18] What is Huai'an? This is Huai'an! Chinese and foreign "Generation Z" journalists explore the ancient city's thousand-year-old charm [EB/OL]. China Radio International, 2025-06-13.