

The historical accumulation and contemporary value of modern Zhoushan marine transportation

Hanzi Gao, Weiqiang Li

Center for Ancient Chinese Maritime Documents, Zhejiang Ocean University, Zhoushan 316000, China

Email: huanxiangtangxing@126.com

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Abstract

As a maritime trade hub and Buddhist pilgrimage site in East Asia, the Zhoushan Archipelago holds profound historical significance and contemporary relevance in its transportation development. Natural disasters and social factors have shaped Zhoushan's unique transportation network, particularly fostering two major spiritual centers: Daishan, centered on the worship of the Dragon King, and Mount Putuo, dedicated to the worship of Guanyin (the Goddess of Mercy). In modern times, key transportation routes include the Shanghai-Ningbo-Mount Putuo route, Hangzhou-Ningbo-Zhoushan route, and the southern-to-northern maritime route. In the new era, Zhoushan should emphasize the contemporary value of transportation heritage by integrating modern development needs. This involves promoting dynamic inheritance of transportation cultural heritage, regional transportation integration, livelihood connectivity, and reconstruction of community consciousness. By actively advancing strategy for promoting integrated development of the Yangtze River Delta and the national maritime power strategy, Zhoushan can rejuvenate itself with fresh vitality, pursue deep-sea dreams, and write glorious chapters in the new chapter of blue seas and maritime endeavors.

Keywords

Zhoushan, history of transportation development; modern travel notes

1. Introduction

The Zhoushan Archipelago, situated at the confluence of the Yangtze River Estuary and Hangzhou Bay, comprises 2,085 islands which include 141 inhabited ones and 1,944 uninhabited ones, earning it the title "City of a Thousand Islands". This strategically positioned maritime network has served as an East Asian trade hub since ancient times, with its maritime history tracing back to the legendary Eastern Expedition by Xu Fu during the Qin Dynasty. In modern times, with the thriving Buddhist pilgrimage culture on Mount Putuo, expanding coastal trade networks, and the eastward expansion of Western powers, all the factors above have significantly facilitated Zhoushan's strategic value. As we enter the new era, Zhoushan must con-

tinue and elevate its dual roles as both a maritime nexus and cultural sanctuary, driving transformative development that elevates its status.

2. The development and evolution of Zhoushan transportation

2.1. Objective influence of physical geography on Zhoushan transportation

The Zhoushan Archipelago, located in the East China Sea at the confluence of the Yangtze River, Qiantang River, and Yongjiang River estuaries, features numerous islands and a winding coastline. Among these, Mount Putuo stands as the main island in the Zhoushan waters, strategically positioned at a maritime transportation hub. It can not only connect Japan and South Korea with the Jiangsu-Zhejiang area, but also link the Liaodong region with Fujian, making it a pivotal convergence point for coastal traffic in China. This unique geographical configuration has endowed the area with abundant port resources, forming natural deep-water harbors such as Dinghai Port and Shenjiamen Port that provide essential shelter for ships. The strong tidal forces along the outer edge of Hangzhou Bay, with an average tidal range of 2-4 meters, have shaped deep-water channels that facilitate the entry and exit of large vessels.

The severity of maritime natural disaster threats facing Zhoushan cannot be overlooked. The surrounding waters are perennially impacted by typhoon tracks from the Northwest Pacific, with an average of 3-4 direct typhoons annually causing winds exceeding force 12 and waves surpassing 10 meters. Located in the East China Seas strong tidal zone, the archipelago experiences an average tidal range of 2-3 meters, peaking at nearly 5 meters. When combined with astronomical high tides, this creates highly destructive storm surges. Narrow inter-island channels, complex topography, and intense tidal forces result in highly variable currents, posing extreme navigation risks. Historically, shipwrecks caused by storms have frequently led to stranded Koreans, Ryukyu Islanders, and Japanese being swept to Zhoushan Islands, while islanders were often stranded in Japan or Korea by the same reason. Through long-term practice, both sides developed informal cross-border maritime rescue mechanisms for stranded individuals. This humanitarian and customary-based mutual aid network strengthens Zhoushan's role as a strategic node in East Asian maritime traffic, positioning it as the endpoint of a potential non-commercial "humanitarian shipping route" and enhancing the regions "soft" navigational support capabilities under complex sea conditions.

Even in contemporary times, natural marine disasters in Zhoushan's waters remain difficult to fully predict and mitigate. On April 11, 1959, thousands of fishermen working at the Lvsiyang Fishing Ground in Jiangsu Province were caught by a temperate cyclone, which unleashed winds exceeding force 10. Over 200 fishing vessels sank, resulting in more than 1,000 deaths and estimated losses of approximately 11.7 million yuan. These catastrophic events serve as a stark reminder of the de-

structive power of marine disasters, prompting both government authorities and civilians to prioritize meteorological forecasting, ship safety standards, and port shelter facility development. Such efforts indirectly contribute to maintaining the stability of coastal fishing communities and maritime trade routes.

2.2. The shaping of social factors on the development of Zhoushan transportation

The origins of Zhoushan transportation development can be traced back to Xu Fu's legendary eastern voyage. In early times, islanders relied entirely on marine environments, developing tidal navigation techniques that formed short circumnavigation routes focused on fishing and salt transportation. Natural sheltered harbors like Shenjiamen and Daishan Gaoting became strategic hubs, establishing the embryonic framework of an "inner archipelago transportation network."

The Zhoushan Islands year-round threats of typhoons, submerged reefs, and turbulent currents have nurtured a unique maritime deity worship system, which in turn has driven the evolution of maritime routes. In 1169 AD (the fifth year of the Qian Dao era during the Southern Song Dynasty), Emperor Xiaozong decreed annual public sacrifices to the Dragon King of the East Sea at Zhoushan. Subsequently, local officials designated the first day of the sixth lunar month each year as the Dragon King Festival. Daishan Island preserves four sacred sites dedicated to dragon worship, where traditions like "offering sacrifices to the Dragon King before sailing" and "gratitude ceremonies for bountiful harvests" have become deeply ingrained in fishermen's daily lives.

During the Tang Dynasty, Japanese monk Hui E brought a statue of Guanyin back to Japan. When his ship reached Mount Putuo and encountered storms. The legend indicated it that Guanyin refused to cross eastward, so Hui E left the statue there. A fisherman surnamed Zhang donated his house to remould the "Guanyin Temple of Refusal." This legend not only established the foundation of Mount Putuo's Guanyin sanctuary but also reflected the inherent risks in Zhoushan maritime routes, particularly around Lotus Bay. In 1214, Emperor Ningzong of the Southern Song Dynasty officially designated Mount Putuo as a Guanyin sanctuary. "At the request of resident monk Deshao, he granted 10,000 strings of coins to rebuild the Yuantong Hall at Baotuo Guanyin Temple, personally inscribing 'Yuantong Bao Hall' and 'Great Dao Sanctuary'. This official endorsement affirmed Mount Putuo's role in promoting Guanyin worship, gradually making it a major pilgrimage site for Guanyin veneration nationwide and globally. It reinforced the region's status as a spiritual anchor for maritime navigation, attracting numerous pilgrim vessels and objectively boosting the prosperity of specific religious routes between Zhoushan and mainland China/East Asia (such as the incense route from Ningbo to Mount Putuo). This faith-driven maritime route became the prototype of modern Zhoushan transportation network. During the Qing Dynasty, Emperor Kangxi further supported this ini-

tiative. In April 1699, he approved the demolition of the nine-dragon caisson ceiling from Nanjing Ming Palace to construct the Great zhenghai Temple Hall, personally inscribing “Puji Qunling” and “Tianhua Fayu” on its plaque. “Putuo Chan Temple” and “Zhenhai Chan Temple” were subsequently renamed to “Puji Chan Temple” and “Fayu Chan Temple”.

Since the early Ming Dynasty, Chinese mainland coastal areas have been attacked by many maritime forces, especially in Zhoushan Islands. The continuous pirate attacks directly threatened the safety of navigation, forcing merchant ships to travel together, hire armed escorts, and even change their routes to avoid high-risk areas.

To combat Japanese pirates and maritime threats, the Ming and Qing dynasties enforced strict maritime prohibitions. During the early Ming period, the policy forcibly relocated residents from Zhoushan's 46 islands to inland areas, rendering official post stations and regular shipping routes nearly obsolete. In the early Qing dynasty, Zheng Chenggong's forces were countered through renewed border relocations and maritime restrictions, reducing Zhoushan to an almost deserted island with only a few government-controlled routes remaining—such as the military supply route connecting Dinghai and Ningbo—which required strict ship permits for passage. This led to the severe contraction and stagnation of the thriving maritime trade network that flourished during the Song and Yuan periods.

The official maritime ban failed to eliminate the demand for trade at sea, instead fostering an extensive network of smuggling activities. When legitimate routes were nearly exhausted, existing practitioners shifted to clandestine operations. In 1526 (the fifth year of the Ming Jiajing reign), Portuguese colonizers seized Liuheng Island in Zhoushan and established Shuangyu Port—the world's largest international trading port at the time. During the Ming Jiajing era, this port became East Asia's foremost international smuggling hub, jointly operated by Portuguese merchants, Chinese private traders, and Japanese Wokou traders. Capitalizing on the Zhoushan Islands' dense reefs and complex waterways, they developed covert shipping routes that evaded official inspections: north to Japan's Hirado and Nagasaki, south to coastal areas of Fujian and Guangdong as well as Southeast Asia, and west to Ningbo and Hangzhou Bay. Though illegal, these illicit trade networks thrived, forming a hidden branch of the “Maritime Silk Road.” Although Shuangyu Port was destroyed by Ming forces in 1548, the decentralized, informal route network model—dependent on intricate geographical features and driven by civilian forces—left a profound legacy, providing valuable experience for future maritime commerce.

During the First Opium War (1840-1842), Britain recognized Zhoushan's strategic importance—particularly its control over the Yangtze River estuary and Qiantang River estuary and its deep-water port advantages, leading to a temporary occupation of Dinghai. Although the colonial period was short, Western powers' covetous designs on Zhoushan's ports and their brief occupation objectively compelled the Qing government to recognize its value. This spurred the modernization of docks at

Dinghai Port and Shenjiamen Port, introducing advanced port planning and management concepts that laid the hardware foundation for Zhoushans integration into the global trade network.

The unique demands of special periods also drove the establishment of dedicated shipping routes. While military conflicts severely disrupted regular navigation, they temporarily opened or reinforced specific routes to meet wartime needs such as troop movements, material transportation, and evacuation. During the Anti-Japanese War, certain concealed waterways and remote islands in the Zhoushan Archipelago were likely used as covert supply lines or cargo transfer points behind enemy lines. In October 1942, Japanese forces requisitioned the passenger-cargo ship "Lisbon Maru" to transport over 1,800 British POWs from Hong Kong back to Japan. While passing through waters near Zhoushan, it was struck by the U.S. Navys USS Grouper, resulting in the deaths of 843 British prisoners and the heroic rescue of 384 survivors by local fishermen. The rescue capabilities demonstrated by the Dongji Islands during the Lisbon Maru incident also highlighted their potential as temporary transit nodes.

3. Main transportation routes in Zhoushan in modern times

3.1. Shanghai-Ningbo-Mount Putuo

Mount Putuo has been a renowned Buddhist sanctuary and tourist destination since modern times, attracting a steady stream of pilgrims and visitors from both China and abroad. According to monastic accounts, the number of pilgrims reached tens of thousands. From the late 19th century to the early 20th century, the Shanghai-Zhoushan route was established and gradually improved, as documented in the chronicles of the Mount Putuo Gazetteer. The main Shanghai-Zhoushan shipping line operated from Shanghai with vessels including the Xinbeijing, Jiangtian, Xinningshao, and Yongxing. These ships first arrived in Ningbo before transferring to Dinghai or Cibe for Putuo. Specifically, the Xinbeijing and Xinningshao ships served Mondays, Wednesdays, and Fridays, while the Jiangtian and Yongxing ships operated Tuesdays, Thursdays, and Saturdays, with Sundays off. Additionally, during the incense season on the 19th of the second, sixth, and ninth months, special Xinjiangtian and Xinningshao ships provided additional services beyond the Shanghai-Ningbo route to Mount Putuo. Direct ferries also operated between Ningbo and Dinghai.

This route, one of Chinas earliest coastal resort routes, targets Shanghais elite class with its "pilgrimage to the sea and sky, summer retreat on a fairy island" leisure concept. Consequently, the high ticket prices and expensive round-trip commuting costs make it unaffordable for ordinary people. During their first pilgrimage journey, residents from Shatan Village in She County, Anhui Province chose this route but later reflected: "Were not familiar with the local customs and transportation routes, so we mostly use three or four yuan denominations." They

sighed that unnecessary expenses were not necessary.

This shipping route genuinely offered a new leisure option for Shanghai residents, providing convenient transportation for those heading to Putuo for recuperation, summer retreats, vacations, or pilgrimage. Dai Kedun, founder of Zhonghua Book Company, once needed to "go to the seaside for recuperation due to illness," traveling with his wife "from Xinningshao to Ningbo, then transferring to Dinghai to stay in Putuo for two weeks". In his essay *Travel Notes from Putuo*, he meticulously described the route and related costs: "From Shanghai to Nanjing, every Monday, Wednesday, and Friday operated Xingjing-Shaoxing. On Tuesdays, Thursdays, and Saturdays, Jiangtian and Yongxing services were available. The ship stopped on Sundays. I boarded the Xinningshao at 1 PM on Sunday. Cabin rates were 1 yuan per passenger, tea and wine 1 yuan. Departure at 5 PM, dinner at 6 PM (without extra charges)." As shipping capacity expanded, major companies opened Shanghai-Putuo routes, with varying prices across different periods. In the 1920s, "cabin classes were divided into three grades: first-class 3 yuan, second-class 2 yuan, and first-class 1 yuan". Before the full-scale Anti-Japanese War in the 1930s, prices slightly increased: "Regular cabins 1.2 yuan, double cabins doubled, official cabins 3.6 yuan".

The prosperity of the Shanghai-Shanghai route also spawned Zhoushan's first port —The Shengjiamen Passenger Station, built in 1933, has a Gothic clock tower as its landmark.

3.2. Hangzhou-Ningbo-Zhoushan

While the Shanghai-Mount Putuo route boasts luxurious amenities, this shipping line thrives with vibrant local life. Beyond the regular luxury liner services on the essential Ningbo-Zhoushan route, the area is dotted with numerous small and medium-sized civilian vessels and inland river ferries of varying sizes and ages, shuttling between Hangzhou Bay, Yongjiang Estuary, and Zhoushan's islands. These vessels either depart from Hangzhou Water Gate or Gongchen Bridge, traveling via the Zhejiang-East Canal to Ningbo, or launch directly from Ningbo's Jiangbei Wharf or Jiangdong Baizhang Street area, heading to destinations like Dinghai, Shengjiamen, and Daishan.

These modest vessels, with their limited tonnage and slow speed, have become vital lifelines connecting coastal towns and island communities. The second pilgrimage route to Mount Putuo documented by Shatang residents in She County begins from Hangzhou, passing through Shaoxing and Ningbo before reaching Mount Putuo. Though involving multiple transfers, this alternative route avoided large passenger ships and significantly reduces travel costs. The ships carry not only travelers but also local specialties like cotton, rice, Shaoxing wine, tin foil, and seafood from Zhoushan. During incense seasons, the cabins become packed with devotees heading to Mount Putuo, creating a unique "pilgrimage boat" spectacle. Unlike the mod-

ern Shanghai-Putuo lines modernity and luxury, this route radiates the vibrant rural charm and commercial vitality of Zhejiang eastern coast. It stands as the true "golden waterway" that sustains livelihoods and bridges urban-rural and island-land connections

3.3. Overseas-Zhoushan

Since the 18th century, with eastward spread of western learning, many Westerners have come to Zhoushan. In the 19th century, especially after the First Opium War, the route from Nanyang to Zhoushan has become increasingly prosperous.

In 1793, British envoy George Macartney led a delegation to China seeking diplomatic relations with the Qing Dynasty and initiating trade. Although their primary objectives were not achieved, the mission documented extensive Chinese customs and landscapes during their travels across multiple regions, including Zhoushan. Following the Opium War, Ningbo was designated as one of the "Five Treaty Ports", attracting missionaries, explorers, and tourists from Britain, America, France, Germany, and other Western nations. As Ningbo's outer port, Zhoushan naturally became the forefront of foreign interactions. Many missionaries, driven by curiosity about Eastern religions, made special trips to Mount Putuo, leaving behind numerous memoirs and travel accounts. In the book *An authentic account of an embassy from the King of Great Britain to the Emperor of China*, Staunton compared Dinghai to "the Venice of the East". Walter Lowrie offered positive evaluations of Zhoushan in his travelogue, while Mccartee lavished praise on Zhoushan's scenery, particularly the beauty of Mount Putuo, in his personal memoirs.

Although these overseas routes were interrupted for some reasons after the 1950s, the accumulated international visibility of them laid the groundwork for the revival of Zhoushan tourism after the reform and opening up.

4. Contemporary value of modern Zhoushan transportation heritages

While most of the historical tourism transportation routes in modern Zhoushan maritime areas have become relics of the past, certain routes still serve as foundations for contemporary coastal infrastructure development. These routes continue to hold multifaceted value and provide valuable insights for now. From cultural tourism resource development and regional economic synergy to marine strategy implementation, the historical experience of Zhoushan's modern tourism transportation offers instructive references for current initiatives such as the Zhoushan Archipelago New Area construction and strategy for promoting integrated development of the Yangtze River Delta

4.1. Live transmission of traffic cultural heritages

As a historical legacy, Zhoushan's modern transportation routes carry rich historical

information and cultural heritage. Contemporary Zhoushan can fully explore and utilize these historical transportation legacies as important resources for cultural tourism. By protecting and restoring modern port relics and ancient waterways, Zhoushan can create culturally rich travel routes that attract domestic and international tourists, enhancing its cultural influence and tourism appeal. Currently, Zhoushan is implementing the Hello Islands Prosperity Initiative, which leverages the islands unique mountain-sea landscapes and specialty industries to optimize tourism formats through "tourism+" integration. This includes developing distinctive "tourism+" brands. To date, 18 model islands and 12 maritime prosperity belts have been established. However, modern transportation heritage like docks and shipping routes in Zhoushan remains largely forgotten. These could be transformed into unique tourism projects. For instance, six major Yuan Dynasty docks recorded in the Local Gazetteers of Dade ChangGuo County—Zhoushan Ferry, Ganlan Ferry, Sizhou Tang Ferry, Cezi Ferry, Jintang Ferry, and Shenjiamen Ferry—though mostly vanished, retained historical significance that can serve as key nodes for water-based tourism routes. The inclusion of these heritage into the new era project is bound to add historical weight, enhance cultural connotation, further stimulate the vitality of island economy, and empower rural revitalization of islands.

4.2. Regional transportation development integration

The historical transportation routes of modern Zhoushan provide crucial insights for optimizing its contemporary transport network. Historically, Mount Putuo's transportation primarily relied on maritime routes connecting key ports and cities in the surrounding areas. This water-based transportation model demonstrated both efficient utilization of marine resources and adaptation to the islands geographical environment. Building on this foundation, modern Zhoushan can further integrate land, sea, and air transportation resources to establish a more comprehensive transportation network. The Master Plan for Territorial Spatial Development of Putuo District, Zhoushan City (2021-2035) outlines key projects including the Liuheng Highway Bridge and Dinghai-Mount Putuo Expressway, along with coordinated land-sea integration and optimization of national and provincial trunk road networks. Introducing ferry services on some inter-island routes will significantly enhance connectivity. Meanwhile, Mount Putuo Airport, as a vital aviation hub, can boost regional accessibility through expanded flight schedules and routes. This multi-tiered transportation system not only improves efficiency but also better serves the travel needs of residents and tourists.

4.3. Reconstruction of peoples livelihood connection and community consciousness

The contemporary revitalization of Zhoushan's transportation heritage fundamentally seeks to bridge geographical isolation through infrastructure development and

reestablish social cohesion through connectivity. In modern times, the islands' transportation network served not only as an economic lifeline but also as a vital conduit for maritime cultural exchange. These historic routes have witnessed the spread and evolution of Buddhist traditions and fishing culture across the Zhoushan Archipelago, forging a distinctive maritime identity. Contemporary urban planning should strategically leverage these cultural resources, transforming transportation infrastructure into dynamic platforms for cultural dissemination. This approach will strengthen local residents' cultural pride, foster community belonging, counteract the erosion of regional identity caused by rapid intercity and interprovincial mobility, and ultimately make historical waterways the enduring lifeblood of this coastal society.

The transportation evolution of modern Zhoushan is a grand epic of confronting nature and adapting to societal needs. From ancient tidal navigation routes for fishing and salt trade to modern international transportation networks, Zhoushan has consistently served as both a maritime hub and cultural landmark. In the new era, the city should fully tap into its rich historical and cultural resources, recognize the contemporary value of transportation heritages, and align them with modern development demands. By promoting dynamic preservation of transportation cultural legacies, advancing regional transportation integration, strengthening community connections, and reshaping collective consciousness, Zhoushan can rejuvenate itself through active participation in strategy for promoting integrated development of the Yangtze River Delta and national maritime power strategies. This will propel the city toward realizing its dreams and writing glorious chapters in the new process of maritime development.

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