

# Landscape Design of Qingdao University Education under the Strategy of Marine Power

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**Abstract:** In the context of the strategy of marine power, this paper analyzes the connotation and significance of the strategy of marine power, discusses the current situation of educational landscape design in colleges and universities in Qingdao, and puts forward the forms and methods of integrating the strategy of marine power into the landscape design of colleges and universities, to provide references for the optimization and development of the landscape design of colleges and universities in Qingdao.

**Keywords:** Marine power; Coastal; Educational landscape design

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## 1. The interpretation of marine power strategy

### 1.1. Connotation of the strategy of maritime power

Since the 18th CPC National Congress, the CPC Central Committee has attached great importance to marine development and utilization and marine ecological progress. Standing at a new historical starting point, the CPC Central Committee has made a series of major decisions and plans for the development of marine undertakings and made new strides in building China into a maritime power <sup>[1]</sup>. College landscape design is an important carrier of campus culture. Through clever design, the campus landscape can show the national policy, the school's philosophy, and the city's historical tradition and spirit, to form a unique campus culture atmosphere. College landscape, as a direct reflection of campus culture, integrates the strategy of marine power into it, which helps college students to understand and feel the concept of marine power more directly and display the characteristics and school-running philosophy of the university. By highlighting the position of the marine power strategy in the campus landscape, the university can highlight the importance of marine education and marine science research, and show the determination and strength of the university to serve the national marine power strategy <sup>[2]</sup>.

### 1.2. The educational significance of the marine power strategy

The embodiment of the strategy in the landscape of colleges and universities will also help to enhance college

students' awareness and responsibility for the ocean. By creating a strong marine cultural atmosphere on campus, students can deeply understand the important status and role of the ocean in the development of the country, to stimulate their sense of responsibility and mission to contribute to the construction of marine power.

It is conducive to improving students' marine literacy and comprehensive ability, to make full preparation for the future development of marine career<sup>[3]</sup>. They actively participate in marine environmental protection activities, advocate a green lifestyle, and protect the marine ecological environment. They pay attention to the innovation of marine science and technology, strive to learn marine science knowledge, and promote the progress and development of marine science and technology<sup>[4]</sup>.

### **1.3. The significance of marine power strategy in landscape design**

Through the construction of marine power theme facilities, carry out marine science education activities, so that students have a deeper understanding of the significance of the marine power strategy, improve the understanding of the marine power strategy, give full consideration to participation and interaction, and deepen the understanding of the marine power strategy in the personal experience. Modern scientific and technological means such as virtual reality and augmented reality technology are used to enhance the interactive experience of the landscape so that students can feel as if they are in the ocean, feel the splendor and mystery of the ocean, and feel the importance of the strategy of maritime power. Intelligent navigation systems and interactive displays are set up to allow students to obtain relevant information at any time in their leisure time, and enhance the fun and interactive nature of landscape design<sup>[5]</sup>.

Displaying the unique charm of national marine culture in landscape design is conducive to enhancing the international image of the city. The strategy of marine power also emphasizes ecological protection and sustainable development. Therefore, more attention should be paid to the respect and protection of the natural environment in the landscape design of colleges and universities, to realize the harmonious symbiosis between man and the ocean<sup>[6]</sup>.

## **2. The method of integrating the strategy of Marine power into the landscape design of colleges and universities in Qingdao**

As a coastal city, Qingdao has unique marine resources. If the landscape design of its universities can fully integrate the strategy of maritime power, it can not only highlight the urban characteristics but also help students feel and understand the marine culture more directly<sup>[7]</sup>. As an important base for training high-quality talents, the landscape design of colleges and universities in Qingdao reflects the strategy of building a powerful ocean country and helps to cultivate students' awareness and responsibility for the ocean. The importance of reflecting the strategy of marine power in the landscape design of colleges and universities is reflected in many aspects such as cultural inheritance, personnel training, school image enhancement, and educational value. Through the marine landscape on campus, students can intuitively understand the marine resources, marine environment, and the close relationship between the ocean and national development, thus enhancing their awareness of marine protection and sense of mission.

### **2.1. Realism**

#### **2.1.1. Direct sensory method**

The direct sensory method is the most basic and key design technique in applying the strategy of ocean power to university landscape design. This method directly and effectively conveys the spiritual connotation of ocean power to students through the elaborate overall landscape design, innovative landscape structure modeling, and

collocation forms. Intuitive learning and understanding of the strategic significance of marine power, combined with the university location of the marine cultural characteristics of integrated landscape design<sup>[8]</sup>. Through in-depth exploration of these regional characteristics, designers can accurately grasp the essence of marine culture and cleverly integrate it into landscape design.

### **2.1.2. Behavioral perception method**

The application of the ocean power strategy in college landscape also needs to be different from the traditional campus greening and landscape design, and pay more attention to the interaction and experience with students, to stimulate their love for the ocean and identification with the ocean power strategy. In the design, the inner needs of students should be fully considered to create a series of marine landscape elements and historical elements that can be personally experienced or perceived<sup>[9]</sup>. Through the behavior perception method, the elements of maneuverability and interactive experience can be integrated into the college landscape, so that students can participate in a series of actual behavior activities related to the ocean to increase their interest in landscape design with actual interactive behavior.

### **2.1.3. Historical recall method**

When the strategy of marine power is reflected in the landscape of colleges and universities after an in-depth study of the history of the strategy of marine power, the major events or important moments related to the strategy of marine power in history are reproduced through landscape techniques. This method does not simply copy the historical scenes, but cleverly uses the landscape design elements and combines them with the historical events of the marine power to create a landscape space rich in connotation and emotion. Different from the behavior perception method, the historical recall method pays more attention to the simple and profound design elements, such as sculptures and landscape walls, in the college landscape to evoke people's memory and resonance of the history of marine power<sup>[10]</sup>.

## **2.2. Symbolism**

### **2.2.1. Method of imagination**

Imaginative design techniques can encourage students to use divergent thinking to deeply interpret the creative source and deep meaning of the form of a certain component element in the landscape<sup>[11]</sup>. This point is often reflected in the landscape of colleges and universities through landscape pieces, structures, and other forms.

### **2.2.2. Scale method**

When reflecting on the strategy of maritime power in the university landscape, the use of scale also directly affects students' senses and perceptual experience. As far as landscape structures are concerned, small-scale structures can bring intuitive observation and experience to the college landscape<sup>[12]</sup>. Small and delicate sculptures or decorative objects with the theme of maritime power can let students feel the delicacy and beauty of the ocean at close range, and deepen their intuitive understanding of marine culture. Large-scale structures can often trigger students' associations and play a more obvious role in creating the theme scene. When reflecting on the strategy of marine power in the college landscape, designers should fully consider the sensory and perceptual differences brought by the scale change of objects and space, and create a marine cultural atmosphere with intuitive feelings and in-depth thinking through clever scale design<sup>[13]</sup>.

### **3. Qingdao University Education Landscape Design under the Strategy of Marine Power**

#### **3.1. Design overview**

##### **3.1.1. Design concept**

The college landscape design with the theme of ship culture theme, from the perspective of cultural inheritance and cultural display, deeply integrates coastal landscape space and marine power strategy, aims to create a new cultural experience for students and campus communities, display a new cultural visualization model under the marine power strategy, and create an immersive marine power theme landscape design.

First, strengthen the connection between points, lines, and surfaces. The scattered and unconnected landscape nodes on the campus are regarded as points, which are connected and integrated effectively through linear design techniques, such as walking paths and landscape belts. This not only forms a complete connection in space but also builds a close connection between the strategy of maritime power and the campus landscape in a sense, forming an overall spatial vein <sup>[14]</sup>.

Secondly, enhances the sense of extension. Linear elements, such as landscape axes and visual corridors, are used to intervene in every corner of the campus to connect and integrate various landscape elements. These linear elements not only extend and expand the original landscape space but also closely connect the various elements in the development process until the scattered landscape elements are integrated into an organic whole <sup>[15]</sup>.

##### **3.1.2. Design detail**

Through the techniques of graphic extraction, abstract generalization, and form expression, the strategy of marine power can be vividly displayed in the college landscape by extracting styling elements for boats, torpedoes, aircraft, and so on. Such a design not only satisfies students' continuous perception and experience of the marine power strategy during the tour but also invisibly guides them to think deeply about the importance and significance of the marine power strategy.

#### **3.2. Planning and layout**

##### **3.2.1. Plan the general plan**

The planning base is located in the coastal area college of Qingdao. The park is divided into six functional areas (**Figure 1**), including A beach walking area; B recreation area; C cultural experience area; D hydrophilic experience area; E Culture display area; and F *Jing Si Mi* forest area. In the design of the whole landscape space, the principle of functional zoning is cleverly used to divide the static, public, and private areas and the open and closed areas with fine techniques. Through a variety of coastal design techniques, this study enhances the cohesion of the site, making every landscape closely linked to form a continuous and systematic cultural space. Walkways are arranged throughout the layout to connect the various sites throughout the subdivision. The wooden walkway cleverly shuttles between the water systems, providing visitors with the opportunity to experience nature up close, while forming a unique and rich internal space.

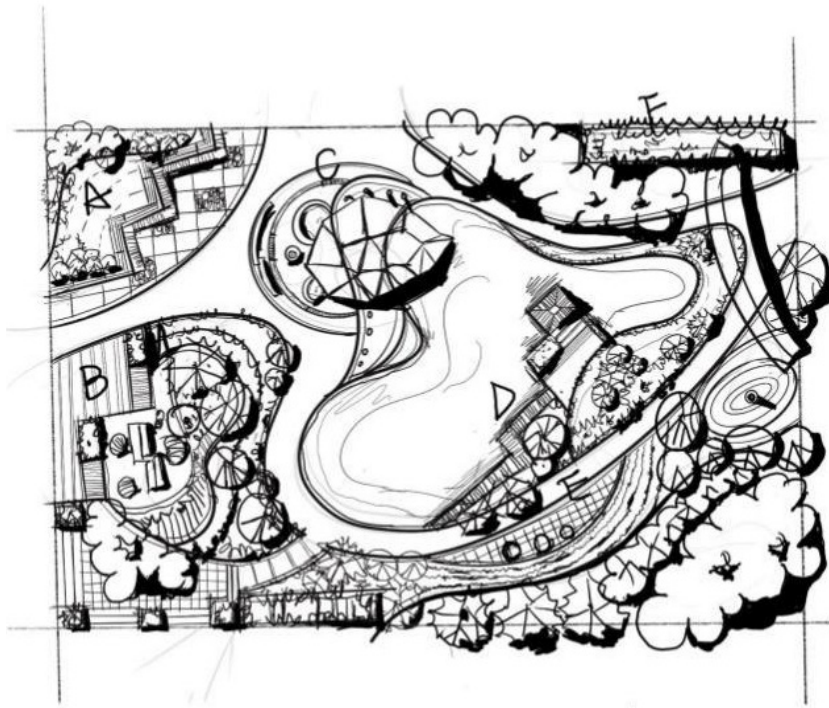


Figure 1. Plane function partition

### 3.2.2. Traffic flow line

The park is divided into secondary roads in the road flow line, and the primary road serves as the main road, whose main function is to run through the whole park and provide the main traffic channel (Figure 2). The setting of the main road not only helps to quickly evacuate the flow of people but also helps to form the skeleton of the park and provide structural support for the overall layout. The secondary roads are mainly responsible for connecting each functional zone in series, realizing the interconnection between each functional zone, and providing support for the diversified transportation modes of the park. Through the connection of secondary roads, all parts of the park are closely connected, forming an organic whole.

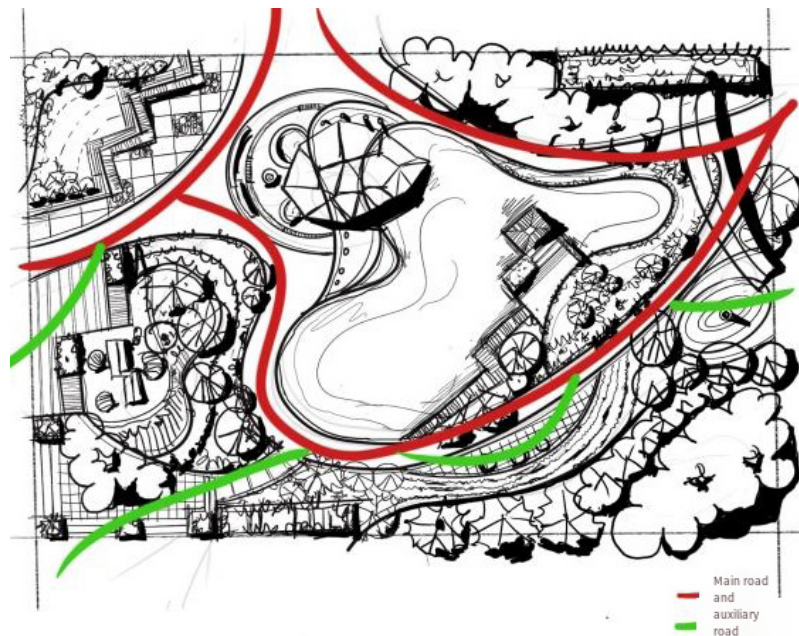


Figure 2. Road distribution

### 3.2.3. Landscape nodes

Concentric dream building uses the abstract design of warships as the main landscape node which can not only

effectively show the charm of maritime power, but also deepen the connotation and characteristics of the theme park. As a representative element, the warship's unique form and symbolic meaning provide rich inspiration for landscape design. Various materials and techniques are used to present the abstract form of warships. Metal, stone, and other hard materials are used to shape the skeleton and outline of the warship, showing its firmness and sense of strength; At the same time, the combination of soft elements such as glass and water features can create a light and flexible effect. In addition, naval ships are combined with marine elements such as lighthouses and wharves to create scenes with the story and emotional resonance. Integrating warships with natural environments such as green spaces and water systems can create a harmonious and natural landscape atmosphere.

For a great power style, the secondary landscape node adopts torpedo as the design theme and carries out a spiral-type abstract design, which not only highlights the unique charm of marine military culture but also reflects the continuous expansion and strengthening of China's military strength. It adds a strong military atmosphere to the park so that tourists can deeply feel the power and glory of the marine power during the tour.

The design of micro-terrain simulates the marine environment, such as wavy lawns, beaches, and so on, so that students can feel the charm of the ocean in a small range.

## 4. Conclusion

The application research of marine power strategy in college landscape is to combine the core concept of marine power strategy with the landscape environment design of colleges and universities. Through an in-depth exploration of landscape design elements, the deep integration of marine power strategy and college landscape can be realized, which will inject new vitality and soul into the college landscape, and also provide strong support for the dissemination and promotion of marine power strategy.

## Disclosure statement

The author declares no conflict of interest.

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