

Ocean Culture Education at Ocean-related Universities in China

Jiafang Zhuang

(Vice Dean & Associate Professor, School of Economics and Management,
Shanghai Maritime University, Shanghai, 200135)

Abstract

Ocean-related universities are the cradles for cultivating ocean specialists in China. Although this is an ocean century, ocean culture education is just starting in sixteen Chinese ocean-related universities; ocean culture courses are few and campus culture with ocean characteristics is unsystematic. It is the responsibility of those universities to heighten awareness of ocean education and promote ocean culture.

Key words : ocean, universities, ocean culture, education

Ocean higher education dates back to the late 19th and early 20th century in China. Ocean universities have cultivated many advanced talents among China's seafaring enterprises, providing strong technical support for developing and utilizing ocean resources. The 21st century is an ocean century and the development of ocean economy is becoming the focus of attention. Thus a sound understanding of the current condition of Chinese ocean higher education' is of vital importance for better development and utilization of ocean resources as well a prerequisite to China's becoming a major ocean power.

1. An Introduction to Ocean-related Universities in China

Ocean-related institutions of higher education mean universities and colleges that offer ocean undergraduate specialties such as marine science, marine biology, ocean engineering, marine engineering, training on ocean-going ships, and marine transport. The Ministry of Education names 701 Website of Ministry of Education of the People's Republic of China www.moe.edu.cn institutions of higher learning at the undergraduate level in mainland China, among which sixteen universities offer ocean specialties. Nearly all those ocean-related universities are located

in coastal areas; namely, Liaoning, Shandong, Jiangsu, Zhejiang, Fujian, and Guangdong provinces as well as Shanghai and Tianjin municipalities. Hubei and Heilongjiang provinces have ocean-related universities because of some special historical reasons. (See Table 1 for details.)

Table 1 Ocean-related universities in mainland China and their geographical distribution

No	University	Location
1	Harbin Engineering University	Harbin, Heilongjiang Province
2	Dalian Maritime University	Dalian, Liaoning Province
3	Dalian Fisheries University	
4	Dalian University of Technology	
5	Tianjin University of Technology	Tianjin
6	Ocean University of China	Qingdao, Shandong Province
7	Hehai University	Nanjing, Jiangsu Province
8	Jiangsu University of Science and Technology	Zhenjiang, Jiangsu Province
9	Wuhan University of Technology	Wuhan, Hubei Province
10	Shanghai Jiao Tong University	Shanghai
11	Shanghai Maritime University	
12	Shanghai Fisheries University	
13	Zhejiang Ocean University	Zhoushan, Zhejiang Province
14	Ningbo University	Ningbo, Zhejiang Province
15	Jimei University	Xiamen, Fujian Province
16	Guangdong Ocean University	Zhanjiang, Guangdong Province

Source: The list of the country's regular institutions of higher education released by Ministry of Education of the People's Republic of China on May 24, 2005

The sixteen universities fall into three groups. The first group includes universities like Shanghai Jiao Tong University, Wuhan University of Technology, and Jiangsu University of Science and Technology, which offer some ocean specialties. However, they never were or will be universities featuring an ocean atmosphere. The second group is comprised of universities like Dalian University of Technology, Tianjin University of Technology, and Ningbo University, which are not characterized by an ocean tone. They offer ocean specialties due to their locations along the coastline. The third group consists of typical ocean universities offering ocean disciplines as major elements in their curricula. Those universities are well known for their ocean characteristics though their undergraduate programmes are no longer limited to ocean disciplines. The rest belong to that group, but they have different emphases. Dalian Maritime University, Shanghai Maritime University, and Jimei University feature specialized training in sea-going

transport. Dalian Fisheries University and Shanghai Fisheries University are celebrated for instruction and research on marine creatures or aquaculture. The Ocean University of China is distinguished for its research and education on marine science. (See Table 2 for details.)

Source: The websites of those universities

Table 2 Ocean-related Universities in mainland China and their ocean specialties

No	University	College / School	Major undergraduate specialties
1	Harbin Engineering University	School of Naval Architecture Engineering	Naval Architecture & Ocean Engineering Harbors, Navigation Channels and Coast Engineering
		Collage of Power and Energy Engineering	Marine Engineering Traffic and Transportation
2	Dalian Maritime University	Navigation College	Navigation Technology
		Marine Engineering College	Marine Engineering
		College of Transport Engineering and Logistics	Traffic and Transportation Maritime Management
3	Dalian Fisheries University	College of Biological Science and Technology	Aquaculture Environmental Engineering (Fisheries Environment)
		College of Oceanic Engineering	Marine Fishery Science and Technology Navigation Technology Naval Architecture & Ocean Engineering
		College of Mechanical Engineering	Marine Engineering
4	Dalian University of Technology	School of Naval Architecture Engineering	Naval Architecture & Ocean Engineering
5	Tianjin University of Technology	Transport College	Navigation Technology Marine Engineering Traffic and Transportation
6	Ocean University of China	College of physical and environmental oceanography	Marine Science Marine Management Applied (Military) Oceanography
		College of Marine Geosciences	Geology (Maritime Geology)
		College of Chemistry and Chemical Engineering	Marine Chemistry
		College of Engineering	Harbors, Water Channels and Coast Engineering Naval Architecture & Ocean Engineering
7	Hehai University	College of Traffic (Ocean) Engineering	Harbors, Water Channels and Coast Engineering Traffic Engineering Marine Technology

No	University	College / School	Major undergraduate specialties
8	Jiangsu University of Science and Technology	College of Naval Architecture & Ocean Engineering	Naval Architecture & Ocean Engineering Harbors, Water Channels and Coast Engineering
9	Wuhan University of Technology	School of Transportation	Naval Architecture & Ocean Engineering Traffic Transportation and Traffic Engineering Traffic and Transportation management
		School of Navigation	Navigation Technology and Maritime Management
10	Shanghai Jiao Tong University	School of Naval Architecture, Ocean and Civil Engineering	Naval Architecture & Ocean Engineering Harbor, Waterway & Coastal Engineering Traffic and Transportation
11	Shanghai Maritime University	Merchant Marine College	Navigation Technology Marine Engineering
		College of Transport & Communications	Communications & Transport Harbors, Navigation Channels and Coast Engineering Business Administration (International Shipping)
12	Shanghai Fisheries University	College of Life Science and Technology	Aquaculture Aquaria Science and Technology
		Marine College	Marine Fishery Science and Technology
		College of Food Science	Marine Bio-pharmacy
13	Zhejiang Ocean University	Marine Science & Technology College	Marine Science Marine Technology
		Marine Fishery College	Marine Fishery Science and Technology Aquatics Breeding Technology Marine Engineering
		Engineering College	Shipping & Marine Engineering
14	Ningbo University	The Faculty of Ocean Navigation	Navigation Technology Turbine Engineering
15	Jimei University	Navigation College	Navigation Technology
		Marine Engineering Institute	Marine Engineering (management)
		Fisheries College	Aquaculture Marine Fishery Science and Technology
16	Guangdong Ocean University	Fisheries College	Aquaculture Marine Science Marine Fishery Science and Technology
		Engineering College	Naval Architecture & Ocean Engineering
		Maritime College	Marine Engineering Navigation Technology Traffic and Transportation

2. The Current Ocean Culture Education

Ocean culture education can be interpreted from two angles. One is the cultural education related to the sea. The sixteen universities imparting ocean knowledge and carrying out ocean research offer the highest levels of ocean learning in the Chinese mainland. All have made universally acclaimed achievements. The other facet is the teaching of ocean culture. As for this aspect of the student's education, the universities are only now beginning to recognize its importance.

2.1 Ocean Culture Education in the Teaching Syllabus

The specialties and syllabuses reflect the status quo of ocean cultural education in ocean-related universities.

Table Two of "Ocean-related universities in mainland China and their ocean specialties" shows that the specialties offered in those universities are mainly in four fields: first, specialties related to marine transport, for example, navigation technology, marine engineering, transportation (international shipping); second, specialties related to ocean engineering, say, naval architecture and ocean engineering and harbors, water channels and coast engineering; third, specialties related to marine fisheries, such as aquaculture, marine fishery science and technology, etc; fourth, specialties related to marine science, namely, marine science, marine chemistry, and marine technology.

Those specialties each have a different focus, but their syllabus will embody the same purpose of imparting theoretical and technical ocean knowledge and developing the related capability (technology) during the courses. Take the syllabus of the navigation technology as an example. Basic courses include English, computer fundamentals, and advanced mathematics, etc; the specialized courses are ship structure and equipment, ocean and meteorology, ship signals, navigation instruments, ship maneuvering, navigation, ship safety and management, etc; with those is practical training in navigation line design, stowage design, seamanship, navigation practice, simulator training, etc; ocean culture is taught though a few optional courses in the humanities offered to fulfill Ministry of Education requirements.

Curricula of that sort are devoted to a technical ocean education. Untouched in all those studies is the essence of ocean culture and its noble concepts. Exceptions do exist. As early as 1996, Ocean University of China started research into ocean culture and established the Institute of Ocean Culture Studies in 1997. The institute offered an elective course called "Introduction to Ocean Culture" in 1998. This course was made compulsory in 1999, and its textbook, *An Introduction to Maritime Culture*, was published in the same year. The course examines ocean culture as a discipline and covers a wide range of topics such as ocean and human civilization, marine customs, navigation and the cultural exchanges between sea and land, marine beliefs, marine science, and ocean economic activities (Qu Jinliang, *An Introduction to Maritime Culture*, Ocean University of China Press, 1999). Besides its academic value, this course is useful in making students aware of the significance of the sea and strengthening their understanding of

the ocean.

2.2 Ocean Culture Education beyond the Classroom

It would be unfair to conclude that Chinese ocean-related universities lack ocean culture education simply because their syllabuses do not include ocean culture courses. The varied definitions of culture do not affect the development, accumulation and inheriting of culture. Similarly, different interpretations of ocean culture and limited experience in ocean culture courses and research do not negatively affect the development and spreading of ocean culture beyond the classroom. Compared with the lack of ocean culture education within the syllabus, ocean culture education beyond the syllabus is rich and colorful, especially in the universities characterized by “maritime/ocean” subjects.

In the broad sense, ocean culture refers to the culture related to the ocean; that is, the material, behavioral, institutional and spiritual ocean culture. The material ocean culture is the most superficial, but easily identified part while the spiritual ocean culture is the inner part involving deep cultural connotations like values and beliefs. In the universities characterized by “maritime/ocean” subjects the relationship between campus culture and ocean can be sensed in the following aspects. First, in terms of material ocean culture, blue is taken as representative color, and the patterns of emblems have a close connection with the ocean, say, patterns of vessel, sail, or wave. Secondly, oceanic elements mingle with the campus’s buildings and the pathway landscape planning and design. For example, the mast, wind vane and watchtower on top of the buildings remind us of these structures on ships; and statues are sculptured in the shapes of anchors, propellers, and fish. Thirdly, in the institutional level, seafaring specialties like navigation technology and marine engineering adopt semi-military management to cultivate the strict discipline needed in future maritime work. Fourthly, in terms of behavioral ocean culture, the themes of campus cultural activities in ocean-related universities are mostly connected with oceans; for example, an art festival may be called the Rhyme of the Ocean, and a website may be named petrel. Maritime customs and taboos spread widely among the teachers and students, becoming unwritten conventions. Fifthly, the qualities of the maritime character, say, the broad mind and bravery to combat winds and waves, are advocated by ocean-related universities...

It can be concluded that ocean culture, involving no systematic teaching, has been spread and inherited in varied ways outside the classroom. The weakness in that method is that the maritime awareness pursued outside the classroom remains spontaneity and fuzzy, and the ocean culture formed and inherited is far from comprehensive.

3. Reflections on Maritime Culture Education

To become a great ocean power is the objective China set herself in the new century, and that great strategic task will ultimately bring China prosperity and rejuvenation. Ocean powers should not only make striking achievements in ocean resources development, marine ecological

environment protection, ocean economy, but also possess strong ocean awareness and rich ocean culture. To a great degree, education affects the future of a nation. Ocean culture education in ocean-related universities in China's mainland has much room to improve in the following aspects appropriate to an ocean power.

First, recognize the importance of education on ocean awareness education. Possessing strong ocean awareness or not is one of the important standards to judge the quality of the ocean researchers, managers and collective quality as a whole. As ocean education has not been popularized in China, education to strengthen the ocean awareness in ocean-related universities becomes more important. Ocean-related universities have the task of developing advanced ocean talents as their responsibility. However, it is hard to imagine how a man lacking ocean awareness can effectively manage ocean resources, or how a man without understanding and affection towards the ocean can become a qualified ocean scientist, technical expert, engineering expert, or navigator. Therefore, the creation of ocean awareness should be the aim of talent-cultivation in ocean-related universities during or even before imparting technical knowledge.

Second, accelerate the introduction of ocean culture courses. Data have revealed that ocean culture research and education are still in their infancy in mainland China. Though the Ocean University of China has established ocean culture as a discipline and made ocean culture a compulsory course, other universities have done little, let alone offered that course. Ocean culture is an emerging discipline, and research into it is just beginning. Its definition remains various and disputable. However, that should not be allowed to interfere with the presentation of ocean culture course and or discussions with students. Indeed, those are undoubtedly effective ways to help students acquire ocean awareness and strengthen their ocean knowledge. What's more, if the ocean-related universities share their thought and make joint efforts on ocean courses and research, this will promote the development of ocean culture courses and the discipline.

Thirdly, organize campus culture with ocean culture at the core. Ocean culture education should not be limited to the classroom or the desired effects cannot be achieved. Ocean culture education is spreading through the ocean-related universities, though it often appears unsystematic and indistinct. If the ocean education in the classroom is rational and features the past, the ocean culture outside the classroom is more direct and focuses on the present. The two complement each other, and neither is dispensable. An ideal campus cultural environment would have ocean culture at its core, and demonstrate the ocean characteristics in terms of spirit, behavior, institution and materials, and maintain the distinguishing features of each university. The establishment of such an ideal system demands elaborate planning and joint efforts by the staff, professors and students.

In this ocean century, Chinese ocean culture education has remained in an embryonic form in many ocean-related universities. To strengthen ocean awareness in their students' education and promote ocean culture is the important responsibility of those universities and the guarantee that China will be an outstanding ocean power.

References

- [1] Qu Jinliang, An Introduction to Maritime Culture, Ocean University of China Press, 1999
- [2] Chen Feng, Enhance Ocean Culture Awareness Education for the whole nation, China Ocean News, 2005, 8
- [3] Jiao yongke, Carry forward Ocean Culture Promote Ocean Economy, China Ocean News, 2005, 5
- [4] Qu Jinliang, Maritime Culture Studies of China, Ocean Press, 2005, 12

