RELATIONSHIPS BETWEEN THE BELIEF PRACTICES AND THE ECOLOGICAL ENVIRONMENT WITHIN SOUTHWEST COASTAL FISHING COMMUNITY IN VIETNAM APPROACHING FROM THE THEORY OF CULTURAL ECOLOGY

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Abstract - This article aims to examine the relationship between the belief practices and the ecological environment within Southwest coastal fishing communities in Vietnam. The fishermen's religious practices are diverse and adaptable to the coastal environment which significantly impacts their livelihood. Case-study research with observation and in-depth interviews indicate the obvious differences in the coastal environment between An Thuy fishing community (Ba Tri District, Ben Tre Province) and Song Doc fishing community (Tran Van Thoi District, Ca Mau Province) in the Southeast and Southwest of the East Sea respectively. The surveyed differences directly affect religious activities, including the time of festivals, offerings, cuisine, and decorations in the two researched areas. In particular, the research result support the scientific theory defined by Julian Stewart, an anthropologist of cultural ecology.

Keywords: belief practices, ecological environment, fishing community, Southwest of Vietnam

I. INTRODUCTION

Southwestern coastal fishing communities in Vietnam have diverse types of beliefs related to fisheries, and they reflect the spiritual culture and worldview of many generations of fishermen who throughout 800 kilometers of provinces that include Tien Giang, Ben Tre, Tra Vinh, Soc Trang, Bac Lieu, Ca Mau, and Kien Giang. Their belief practices reflect each community's adaptation to the ecological environment in the

Southwest coastal area. To study the relationships between belief practices and the ecological environment, case-study research was implemented in two typical fishing communities of the southwest coastal area, including An Thuy (Ba Tri District, Ben Tre Province) and Song Doc Town (Tran Van Thoi District, Ca Mau Province). The fishing industry in these two areas is developed in terms of inshore and offshore activities. An Thuy Commune is located next to the mouth of Ham Luong river with more than 1,000 boats or ships and 7,000 employees (as of 2020) [1]. Next to the mouth of Song Doc river, Song Doc Town is crowded with boats from many other provinces and cities that use the port to leave for fishing in the Southwest Sea. In 2020, there were over 1,500 boats with thousands of fishermen [2]. Because An Thuy Commune is located in the southeast while Song Doc Town is in the southwest, there are certain differences in fishing between these two communities due to different types of weather.

To meet the research aim, this study is based on the theory of cultural ecology. The analysis focuses on the relationship between the belief practice and the ecological environment of the fishing communities in the two southwest coastal areas. The research results effectively confirm the related theory through a specific case study.

II. LITERATURE REVIEW

National and international researchers have studies the relationship between fishermen's cultural life and the ecological environment within coastal areas. A prominent example of a relevant study is illustrated by the book *Those who live from the sea: Study in Maritime Anthropology* by Estellie M. Smith, published in the U.S. in 1980, which provided ethnographic

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data on fishing communities in America such as Canada, Venezuela, the United States, and Ecuador. The book is famous for its analysis of the community origins, economics, ecological impacts, and development of fishermen's sociocultural life [3]. In Vietnam, the book entitled The fishing community in Vietnam by Nguyen Duy Thieu [4] analyzed the formation and development of fishermen groups in Nguyen focused on professional fishermen whose fishing activities play an important role in their livelihood. In particular, the author analyzed the belief practices of fishing communities focusing on the relationship between environment and livelihood. In addition, the book named The coastal village folklore edited by Ngo Duc Thinh [5] is about the culture of coastal fishing communities from the North to Thua Thien Hue. Through this work, the beliefs of these coastal fishermen are shown to be diverse through rituals, taboos, legends, and worship practices, a diversity reflected by the distinct and unique features of coastal areas. Additionally, the work entitled Southern Vietnamese fishing community edited by Tran Hong Lien [6] shared an ethnographic case study conducted in the two fishing communities of Phuoc Tinh (Dat Do District, Ba Ria - Vung Tau Province) and Vam Lang (Go Cong Dong District, Tien Giang Province). This research analysed the process of formation and development, economic and social life, and cultural activities of indigenous fishermen, helping to clarify the relationship between the natural environment of local coastal areas and the cultural life of local fishermen, including belief practices. Similarly, the book entitled The social - economic - cultural life of fishermen and residents in the Southern coastal region by Phan Thi Yen Tuyet [7] is an in-depth study of the southern coastal fishing community from the perspective of marine anthropology. The researcher provides an overview of the natural environment as well as major economic, social and cultural features of coastal fishermen and residents in nine southern provinces in Vietnam. In this study, the author applied the theory of cultural ecology study the impact of fishermen's livelihoods on the community's cultural activities in general and belief practices in particular. This

is considered a good demonstration of the impact of ecological factors in the southern coastal region on the community's culture and beliefs. These studies illustrate how the characteristics of the ecological environment play a significant role in the formation and development of culture within fishing communities, and they demonstrate how the ecological environment can be a main and important factor affecting the formation of cultural characteristics in general as well as people's belief practices in particular.

III. RESEARCH THEORY AND METHODOLOGY

A. Theory of Cultural ecology

The theory of cultural ecology was used in this study as a theoretical foundation to support the analysis of the relationship between the belief practices of southwest coastal fishermen in Vietnam and their ecological environment. Cultural ecology, a common theory for cultural anthropology research, proliferated in the mid-twentieth century in the United States. It indicates the close relationship between the natural environment and culture, in which the natural environment is the basis for the formation of different cultural models. A founding researcher of cultural ecology was Julian Stewart (1902-1972), an American anthropologist, who was influenced by previous researchers such as Clark Wissler (1870-1947) and C. Daryll Forde (1902-1973), scholars who have paid great attention to the impact of the environment on culture [8].

The main theory of cultural ecology was initially developed by Julian Stewart, who claimed it has several core goals. Firstly, within the field of cultural ecology, it is necessary to analyze the correlation between the natural environment and the methods of exploring cultural ecology. Secondly, there is a need to examine the relationship between society's ways of working (including individual or group work) and people's livelihoods. And finally, it is important to study the interplay of these two relationships and other cultural aspects [8]. According to Vu Minh Chi [9], cultural ecology studies how humans adapt to their environment through culture, as culture is significantly influenced by different types of

environmental resources. Therefore, adaptation is the focus of the interaction between humans and the environment. It shows human's relationship with the environment through culture [8].

Julien Stewart's approach to cultural ecology also emphasized the adaptation of culture to specific environmental conditions. Human resources make certain impacts on different social institutions, including residence rules, generations, community size, and residence location. Stewart also assumed that a society with limited technological development considerably suffers from environmental impacts. However, when society develops with advanced technology, it is influenced by culture instead of the environment. Particularly, there is no specific development process of culture. In fact, it depends on its environment and situation. Similar cultures tend to follow the same development process to deal with environmental challenges, which is known as the cultural nucleus. Cultures with similar cultural nuclei share the same culture model [10]. However, according to Stewart, the ecological environment affects the culture in terms of society, politics, and religion which are directly influenced by the environment. In his work on The patriarchal group, he argued that religion is influenced by ecological adjustments. Although religion is a functional part of every culture, it independently develops based on its society and cultural ecology [11]. To sum up, Julien Stewart's theory is significant for examining people's cultural behaviors and religious and belief practices. Based on these theories, this study assumes that under specific ecological conditions of the coastal environment in the two studied areas, fishermen's belief practices are directly affected by ecological and environmental conditions as well as the adaptation to the coastal ecology for proper livelihood.

B. Research methodology

The data were collected through qualitative research, including observations, in-depth interviews with 20 fishermen, and the collection of field notes in An Thuy Commune and Song Doc Town during the period of 2018 - 2020. Observational data was collected about each community's culture, livelihood and social activities.

Importantly, observation supported in-depth interviewing about people's religious activities, especially festival or worship practices. Observation provided effective data describing the community's religious practices. In addition, it revealed religious phenomena and symbols through the rituals, which helps to verify interview data as well as to suggest topics for discussions in the in-depth interviews. Regarding how interview data were collected, in-depth interviews were conducted in the two communities with target samples of helmsmen, fishermen, boat owners, seafood agents, grocers and boat builders. The goal of the interviews was to study people's beliefs, attitudes to religious practice, and personal experiences. In addition, the research sample was selected based on age to ensure participants represented both old and young people in the communities. Older participants provided richer historical perspectives about the fishing industry, belief practices, history and community culture, as well as changes in each community's belief practices. The in-depth interviews aimed to explore the participants' jobs, knowledge of the ecological environment, beliefs and risks to livelihoods.

Finally, the research data gathered from field notes within the research areas related to types of fish and shrimp and fishing methods. The field notes were collected from informal group discussions as well as conversations in different community groups. Such groups included representatives of local authorities, celebration committees, board of trustees, administrators, temples, and people with different careers. This type of data revealed useful information relevant to history, culture, socio-professional relations, and livelihood activities within each community. The data collected through field notes were carefully recorded for reference and comparison with the interviewed data to support ongoing analysis.

IV. RESEARCH RESULTS

Results illustrated that the belief practices within the communities are strongly influenced by the fishing practices and relationships to the marine environment. For fishermen, the purpose of worship is to show their gratitude to Gods and

pray for the stability, development and prosperity of the fishing industry. In An Thuy and Song Doc, fishermen worship Ca Ong (Whale) and the goddesses. Analysis of belief practice therefore focused on the belief practice of Ca Ong and the belief practice of Mother worship.

Regarding the Ca Ong belief, it is a typical belief of fishermen in An Thuy and Song Doc. They believe in Nam Hai God who can give them safety, save them from accidents, and bless the fishing industry to be prosperous and affluent. In addition, fishermen show their belief and gratitude to Nam Hai God through religious activities like Ca Ong worshiping, which includes the construction of a mausoleum for worshiping Ca Ong, the organization of Nghinh Ong festival, and the performance of Vietnamese classic opera, activities conducted to receive blessings from Nam Hai God. Fishermen in An Thuy and Song Doc express their gratitude to the Ca Ong and to pray for their prosperity and safety. The festival of Nam Hai God is annually celebrated on the 16th and 17th of lunar January in Nam Hai mausoleum in An Thuy, while it is celebrated on the 15th and 16th of lunar February in Song Doc. This is the biggest festival in the region.

Regarding belief in Mother worship, the surveyed data in An Thuy and Song Doc indicated that there are various places for Mother worship, including two shrines of Chua Xu Goddess, two shrines of Thien Hau Thanh Mau Goddess, two shrines of Thuy Long Goddess, and one shrine Quan Am Nam Hai Goddess. In other words, the largest number of shrines were for Mother worship in the two surveyed areas. In addition, fishermen set up the altar of Thuy Long and Quan Am Nam Hai on their boats to reflect their belief in Ba Cau. In general, the belief in Mother worship of fishermen in An Thuy and Song Doc is related to the belief of Chua Xu Goddess, Thuy Long Goddess, Cau Goddess, Quan Am Nam Hai Goddess, and Thien Hau Goddess. In addition, religious festivals along with shrines and dance performances are typical religious practices in the communities to express their belief in these Goddesses.

In general, data illustrated that the ecological environment significantly affects people's cultural activities, creating typical cultural activities in the community in general as well as religious beliefs in particular. The belief practices of fishermen in An Thuy and Song Doc are closely related to coastal ecology and fishermen's livelihoods. This result helps to support Stewart's point of view that belief and religion play an important role in people's culture which is directly influenced by the natural environment. Generally, the impact of the ecological environment on the belief of fishermen in An Thuy and Song Doc is reflected through the time of festival organization, the location and the decoration of religious facilities, and coastal cuisines. Many festivals in An Thuy and Song Doc are organized based on the time of monsoon in the Southeast and Southwest. Previously, due to the small boats and low engine capacity, fishing activities of fishermen in An Thuy and Song Doc depended on the monsoon in the East Sea. There are two main types of monsoon, including the southern and northern winds. It is convenient for fishermen in An Thuy to go fishing within six months of the southern monsoon from lunar March to lunar September. In this season, the sea is calm with few waves and many fish and shrimp. On the other hand, in the season of the northeast monsoon from lunar October to lunar March, fishermen can get into difficulties caused by more waves and fewer fish and shrimp. It is the most convenient for fishermen in An Thuy to go fishing in the southeast from lunar March to lunar September. Especially, the southeast wind from lunar March and lunar April is useful for the development of fish and shrimp. However, it is more difficult for fish and shrimp to develop from lunar October to lunar February (especially from lunar September to lunar November) because of the many waves, thunderstorms and cold weather caused by the northern wind. As a result, fishermen face many difficulties in fishing during this season.

The previous inshore fishing in An Thuy had to comply with this rule because of the limitation of fishing methods and facilities. Fishing activities are effective in six months of the year from lunar March to lunar September. In other months, fishermen earn their living by doing other jobs such as farming. Therefore, after the 15th of January, fishermen deal with work related to

mending fishing nets, setting sails, and repairing boats in preparation for the new fishing season. Thus, Nghinh Ong festival in An Thuy takes place on the 16^{th} , 17^{th} , and 18^{th} of lunar January in order to pray for prosperity. This is time for a new fishing season after a long period of leisure time. Moreover, it is possible that Nghinh Ong festival in coastal areas of the Mekong Delta such as Vam Lang (on the 10th of lunar March), Tran De (on the 21st of lunar March), Ganh Hao (on the 10th of lunar March) is closely related to the southeast monsoon which is convenient for fishing. Within the community, there is a common saying that "It's time for the old woman to go fishing in March," which reflects the fishing experience of fishermen in An Thuy. In other words, lunar March, the time of both the southern and northern wind, is convenient for fishing thanks to a large number of fish and shrimp as well as the peaceful weather. Therefore, for more than 50 years, the festival in Tiem Tom GoddessTemple has been changed into lunar June instead of lunar March. Since then, it is annually celebrated on the 16th, 17th, and 18th of lunar June when there are often heavy thunderstorms.

In the past, because of simple ways of fishing, the fishing activities of fishermen in Song Doc depended on two types of monsoons in the Southwest Sea. Unlike the southeast of the East Sea, there are heavy waves, strong winds, and fewer fish and shrimp in the southern monsoon season from lunar March to lunar September. Such natural phenomena negatively influence fishermen's fishing activities, their facilities as well as their lives. In contrast, it is more convenient for their fishing in the northern wind from lunar October to lunar February because of the peaceful sea and more fish and shrimp. Therefore, fishermen start their new fishing season at the end of lunar August. It is possible that the celebration of Nghinh Ong festival in Song Doc on the 15th of lunar February is suitable for fishermen's leisure time due to the beginning of the southern wind. In other words, this is an opportunity for them to show their gratitude to Nam Hai God for their stable and prosperous life.

The tides also influence the festival celebration of Nam Hai God in Song Doc. It starts in the

early afternoon of the 15th of lunar February and ends in the late afternoon of the same day. The tide in the southwest changes once a day. When the tide rises, the water level is up from midday until midnight. Therefore, this is a good time for the celebration of Nghinh Ong festival. Meanwhile, the tide in Ham Luong river in particular and in the west of the East Sea in general is the semi-diurnal tide. In other words, the tide changes twice a day. Therefore, in addition to An Thuy in the past 2, Nghinh Ong festival in Vam Lang, Binh Thang, My Long, Tran De, Ganh Hao, and other locations is celebrated in the morning for timely return before the rising tide. If it is organized in the afternoon as in Song Doc, it is difficult for boat traffic due to the low tide. Besides, Nghinh Ong festival in An Thuy and Song Doc is organized in mid-January and mid-February when there is a higher tide. The tide rises higher at the beginning and middle of each month.

In addition, the location of mausoleums and temples in An Thuy and Song Doc is influenced by the coastal ecological environment as well as the community's livelihood. Ca Ong (Whale) mausoleum in An Thuy, Tiem Tom Goddess Temple, and An Thanh Goddess Temple face the east and direct look at the sea. In contrast, Nam Hai God Mausoleum in Song Doc in the west looks at Ong Doc river. It is possible that the location of mausoleums and temples reflects the close relationship between God as well as Goddess and fishermen's livelihood.

Located next to the mouth of Ham Luong and Ong Doc rivers, there is also a relationship between the rivers and canals and the locations of some religious establishments. This is convenient and suitable for the community's transportation. Previously, there was Ngao Chau canal in front of Nam Hai God Tomb in An Thuy Commune. Therefore, it was very convenient for boats to travel and visit the tomb at festivals. However, this canal has gradually been filled up and is no longer as convenient as before. It requires visitors to go by boat or canoe for visiting Chua Xu

²Before 1975, there was the participation of all fishermen at Nghinh Ong festival in An Thuy Commune. Because of war, the festival has been changed into the ritual in the main hall of the mausoleum at 8 AM. for more than 45 years.

Goddess Temple in Song Doc Town. It is also convenient to visit Quan Am Temple opposite Chua Xu Goddess Temple. Temples in Ca Mau are located next to rivers and canals or at river junctions and crossroads, which is considered a typical aspect of this province.

The coastal environment as well as fishermen's livelihoods also affect the decoration of Thien Hau Cung and An Thanh Goddess Temples. The painting of hundreds of fish and birds in Thien Hau Cung Temple shows the ideal environment of Song Doc Town for the development of many species of birds and fish. Besides, similar to An Thanh Goddess Temple in An Thuy Commune, there is a painting of many boats gently surfing on a calm sea.

During religious events, visitors also try special food made from fresh fish and shrimp. At festivals, visitors have an opportunity to enjoy the mix of shrimp and papaya served with fresh vegetables and boiled meat. In the afternoon, there are many dishes made from fresh bumalo, threadfin or butterfish. With different kinds of fresh fish, visitors can enjoy a delicious soup consisting of fresh fish, tomatoes, a little fish sauce, chili and onions. At the festival of Nghinh Ong in Song Doc Town, visitors are served a special dish made from meat and tuna. According to many people, this kind of food is also popular in the Lunar New Year. Each piece of tuna has been carefully cooked to make it more delicious.

V. CONCLUSION

In conclusion, data collected during this study clearly demonstrated how the coastal ecological environment affects the belief practices of the communities in An Thuy and Song Doc. Fishermen's livelihood depends on the cycle of the monsoon, which influences the celebration of festivals in terms of time and participants. The coastal natural environment is indicated through cuisine, decoration and the location of temples or mausoleums. These research results support the theory of cultural ecology by Stewart, especially the idea of the impacts of the ecological environment on people's beliefs and religion. In particular, it is necessary to emphasize the importance of livelihood and people's practical

knowledge for effective adaptation to living in coastal areas. Moreover, this result agrees that people's adaptation to the natural environment is based on their livelihood, which creates ecological impacts on people's beliefs.

Currently, there are many changes in the natural environment in these two communities, especially the limited number of harvested shrimp and fish. It is said that visitors of temples in An Thuy as well as Nam Hai God mausoleum in Song Doc Town could enjoy many delicious dishes thanks to fresh harvested fishes by fishermen for ten years. Similarly, many people in Tiem Tom Goddess Temple remember prosperous harvests with big size stingrays, or heavy mackerels. Nowadays, it is rare to see such fresh and expensive seafood because of inconvenient harvesting and difficult living. Therefore, participants showed regret for the lack of such special dishes at festivals. This is an effective example of the relationship between the ecological environment and cultural changes and how each community's culture is facing the challenges of climate change in terms of drought, lack of clean water, pollution, and changes in the ecological environment.

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