

Cognitive culture of the river environment as reflected in place names in Can Tho City

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Abstract:

The natural environment of the Mekong delta in general, and Can Tho in particular, plays an important role in shaping the living environment for its inhabitants, contributing to the formation of a distinctive river culture for both Can Tho and the Southwest region. The expansion of land reclamation and agricultural production activities in the Southwest region generally, and Can Tho specifically, since the 17th century, has fundamentally altered the natural landscape. This transformation is clearly reflected in the place names of Can Tho. The character of the natural environment is encoded in these place names and partly reflects accumulated knowledge of river and canal systems, as well as an awareness of aquatic animals and local waterway traffic. Using data collection, statistical and classification methods, fieldwork, and in-depth interviews, combined with interdisciplinary approaches and grounded in cultural region theory, particularly with reference to the natural characteristics of Can Tho, this article focuses on understanding the manifestations of cognitive culture related to the river environment through place names. It thereby contributing to documenting indigenous knowledge of the local people.

Keywords: Can Tho, cognitive culture, place names, river environment.

Classification numbers: 9.3, 10

1. Introduction

Humans exist and develop within the natural environment; therefore, the relationship between humans and nature is a fundamental aspect of cultural life. This relationship is multidimensional, involving both adaptation to the living conditions imposed by nature and the transformation of nature through techniques, experience, and other means to enable it to serve human needs. Through this process, humans form lifestyles, behavioural principles, and cognitive attitudes appropriate to the natural conditions surrounding them.

To adapt, exploit advantages, and cope with the difficulties and challenges posed by nature, specifically the river environment, the people of the Southwest in general, and those of Can Tho in particular, must possess a wealth of experience and a considerable body of knowledge about the cultural space in which they exist. Consequently, awareness of the river environment constitutes one of the essential and vital needs of the residents here.

According to N.T. Tran, et al. (2018) [1], “*in the process of existence and development, the human community - the cultural subject - always has the need to learn, and thus has accumulated a rich treasure of experience and knowledge about the universe and humans themselves - these are two microsystems of the cognitive cultural subsystem*”. In their history of interacting with the natural environment, especially the river environment, they have “both applied their existing knowledge to take advantage of and deal with the environment, and accumulated a lot of new knowledge based on the experience gained through this process”.

2. Research objects, scope, and methods

2.1. Research object and scope

This article examines place names that reflect the cognitive culture of the river environment among the people of Can Tho, focusing specifically on those that convey awareness of river and canal systems, as well as aquatic animals and local waterway traffic.

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Content scope: The study surveys written documents and field investigation materials, including existing place names as well as those that have since disappeared but still retain valuable cultural elements.

Spatial scope: The primary focus is on Can Tho city. To gain a deeper and more comprehensive understanding of the formation and transmission of cultural capital, the research extends to include place names within Can Tho province.

Time scope: The survey encompasses place names recorded from the establishment of the Tran Giang headquarters in 1739 up to 2021.

2.2. Research methods

Based on the article's approach grounded in the theory of cultural regions, interdisciplinary methods are employed, including analysis and synthesis, statistics and classification, with particular emphasis on data collection.

Data collection method: This method enables the author to obtain a rich and authentic source of documents, facilitating effective research on the topic. It comprises:

- **Primary data collection:** Combined with field investigation and interview methods, the author gathers data on the meanings and origins of folk place names that currently exist primarily in the consciousness or daily lives of the people and are rarely found in publications or administrative records.

- **Secondary data collection:** Documents related to the topic are selected from various sources, including books, journals, theses, dissertations, and websites. Official lists of place names in Can Tho city associated with cultural awareness of the river environment are obtained from state agencies (Statistics Department, relevant departments, branches, and sectors). Additionally, documents from authors researching place names in Can Tho city are consulted. Folk place name records that appear only in publications but not in administrative documents are drawn from sources such as the Party History of Can Tho province (historical), Party Histories of districts, Mekong delta folk literature, Can Tho folk literature, local documents published during the French colonial period and the Republic of Vietnam era, old geographical records of Can Tho province, and current local historical references. These official, published sources are highly reliable. The diversity and richness of these data provide significant advantages for analysis, evaluation, and understanding of the subject matter.

Statistical and classification method: From the collected data, statistical analyses are conducted on the number of place names related to the cognitive culture of the river and canal environment currently existing in Can Tho city. These are then classified into three fundamental groups: place names reflecting cognitive culture of river and canal systems, those reflecting awareness of aquatic animals, and those relating to waterway traffic. The results form the basis for systematically and comprehensively decoding place names containing elements of cognitive culture related to the river and canal environment.

Synthesis and analysis method: Building on the classified data, the author analyses the origins, meanings, and cultural values of the cognitive culture of the river and canal environment as expressed in place names in Can Tho city, verifying findings against relevant sources. The results serve as key evidence for comparison, evaluation, synthesis, and commentary throughout the research period and underpin the article's findings.

The results obtained through these methods provide the author with a comprehensive and diverse documentary base in terms of both the quantity of place names and the objectivity and thoroughness with which the cultural elements of river environment awareness embedded in Can Tho's place names can be decoded.

3. Findings

Through field surveys combined with statistical analysis of place names in Can Tho city, the author recorded 499 place names associated with the cognitive culture of the river environment. The research results are shown in Table 1.

Table 1. Place names reflecting cognitive culture of the river environment in Can Tho city.

No.	Types of place names	Number
1	Place names reflecting cognitive culture of river and canal systems	433
2	Place names reflecting cognitive culture of aquatic animals	34
3	Place names reflecting cognitive culture of waterway traffic	32
Total		499

Source: Survey results, 2021.

3.1. Place names reflecting the cognitive culture of river and canal systems

The survey results are shown in Table 2.

Table 2. Statistical table of place names related to river and canal systems.

No.	Types of place names	Number
1	Place names associated with the element Lang	9
2	Place names associated with the element Lung	7
3	Place names associated with the element Rach	132
4	Place names associated with the element Xeo	43
5	Place names associated with the element Tac (Tat)	10
6	Place names associated with the element Vam	26
7	Place names associated with the element Song	8
8	Place names associated with the element Kenh (Kinh)	116
9	Place names associated with the element Cai	82
Total		433

Source: Survey results, 2021.

Place names related to water elements in Can Tho illustrate the dense network of waterways in the ancient land of Tran Giang, present-day Can Tho. As the capital of the Southwest region since the French colonial period, Can Tho is situated on the right bank of the Hau river in the Mekong delta. It is an urban river area characterised by a dense system of rivers and canals, renowned for numerous fruit gardens along the Cai Rang, Ba Lang, Vam Xang, and Phong Dien routes, extending extensively to the Binh Thuy canal. The Cai Rang floating market is also a notable attraction for both domestic and international tourists. Since its formation, the land of Tran Giang - Can Tho has been entirely composed of alluvial deposits regularly laid down by the Mekong river through the Hau river.

Tran Giang Dao - the original name of the Can Tho land - is one of the four Daos established by Mac Thien Tich in 1739. In "Gia Dinh Thanh Thong Chi", T.H. Duc (1999) [2] wrote: "The headquarters of Tran Giang Dao is located on the West bank of Hau river upstream from the East of Nam Vang citadel flowing down to Chau Doc, Can Dang, to the south to Cuong Oai, Lap Vo mountain, then to Tran Giang, through Tran Di Dao, to Ba Thac seaport...". With favourable terrain adjacent to the great river, Tran Giang Dao became a key strategic position on

the waterway and a strong rear base for Ha Tien in its defence against the frequently harassing Siamese and Khmer armies. The name Tran Giang means "to guard the river", which can be broadly understood as referring to a river region.

The Hau river (also known as the Bassac river, Tonle Bassac, or Ba Thac) is a branch of the Mekong river, approximately 220-250 km in length, with the section flowing through Can Tho spanning about 65 km. The "Dai Nam Nhat Thong Chi" of the National History Institute of the Nguyen Dynasty (1997) states that [3]:

The Hau Giang river is located 8 miles northwest of Tay Xuyen district. It originates as the Tien Giang river, reaches Nam Vang district of Cambodia, and splits into a branch to the southwest to become the Hau Giang river. The east of the river are the districts of Dong Xuyen, Vinh An, and An Xuyen. To the west are the districts of Tay Xuyen, Phong Phu, Vinh Dinh, and Phong Thinh. The river is in the middle of the province.

Thus, the territory of Tran Giang - Can Tho, from the time of Lord Nguyen Phuc Khoat (Tran Giang) to that of King Gia Long (Vinh Dinh district) and King Minh Mang (Phong Phu district), was situated on the west bank of the Hau river. Today, the Hau river flows through the districts of Thot Not, O Mon, Binh Thuy, Ninh Kieu, and Cai Rang, depositing fertile alluvium that contributes to the prosperity of the local economy. Moreover, the Hau river has lent its name to several localities, including Hau river road, Hau river 3 area (Ninh Kieu), Rach Sung - Hau river road (O Mon), Nam Hau river urban area, and Nam Hau river road (Cai Rang).

Between the Hau Giang section and the Can Tho river basin, hundreds of large and small canals flow into the city. Among these, place names containing the element Rach constitute the largest group, with 132 instances. According to H. Phe, et al. (2009) [4], the original Khmer term for rach is prek (prek, preak), meaning "a path leading water from the river to the fields, where boats can travel". Examples include Rach Cam river, Rach Cam Nho river, Rach Ranh bridge, Rach Mieu bridge (Binh Thuy), Rach Gap road (O Mon), Rach Ruong market, Rach Rich market (Thot Not), Vam Rach Tre bridge, Rach Nha Tho bridge (Phong Dien), and Rach Chiec bridge (Cai Rang), among others.

In addition, canals are recorded in 116 place names. These are defined as "water conduits dug and built on the ground, serving irrigation and transportation" [4]. These canals not only facilitate convenient water travel but also aid in draining acidity and washing away alum from the soil. Typical place names associated with this

water element include Kênh Cho canal, Xeo Kinh bridge, Kinh Giua bridge (Phong Dien), Kênh Cut estuary, Kênh So 10 intersection (Thot Not), Kênh Xang bridge, Cau Kênh road (O Mon), Kinh Ngang bridge, and Kinh Chuoi bridge (Thoi Lai), among others.

Xeo is defined as a “small creek in the South” [4]. It represents a typical riverine landform in the Southwest region generally, and in Can Tho specifically, and is reflected in 43 place names. Place names containing the element Xeo in Can Tho often include names of plants that grow abundantly in the area, such as Xeo Quyt canal, Xeo Lua canal, Xeo Lua bridge, Xeo Khe canal, Xeo De canal (O Mon), Xeo La canal, Xeo La bridge (Cai Rang), Xeo Cao bridge, Xeo Khe bridge (Binh Thuy), Xeo Tram bridge (Thot Not), Xeo Tre bridge, Xeo Tram bridge (Co Do), Xeo De canal, Xeo De bridge, Xeo Cui canal, Xeo Cui bridge, Xeo Tre canal, and Xeo Tre bridge (Phong Dien).

Vam, of Khmer origin *piam* (pam, peam, piem), means “river mouth, where a canal flows into a river or a small river flows into a larger river” [4]. In Phong Dien district, there is a place called Vam Xang, named after the dredgers who began excavating the Xang Xa No canal from the Can Tho river section, approximately three kilometres from Phong Dien market. Consequently, the place name Vam Xang, along with Vam Xang market and Vam Xang ferry, originated from this. Other place names containing this element include Hai Vam bridge, Vam Can Duoc bridge (Thot Not), Vam Nhon bridge (Thoi Lai), and Vam Rach Tre bridge (Phong Dien).

Place names containing the element Cai have been classified by the author as reflecting the cultural perception of the river environment in Can Tho city. According to L.T. Hoa (2002) [5], “Cai is a noun meaning a river branch or a canal... With the understanding that Cai denotes a river branch or canal, it is possible to explain more than 90 percent of place names containing the common element ‘Cai’ in the South”. In Can Tho, there are 82 place names featuring this element, most of which are associated with plants, such as Cai Chanh canal, Cai Cui river, Cai San estuary, Cai Chanh market (Cai Rang), Cai Khe canal, Cai Son canal, Cai Khe ward (Ninh Kieu), Cai Chom canal, Cai Son area, Cai Chom Rach bridge (O Mon), Cai Son Tren road, and Cai San Vam road (Thot Not), among others.

Additionally, place names in Can Tho record various terrain types, such as Lang Sen canal, Lang Sen market, Lang Chim district road (Vinh Thanh), Ba Lang river, Ba Lang ward (Cai Rang); lung: Lung Au canal (Vinh Thanh), Lung Sau bridge (Phong Dien), Lung Tuong bridge

(O Mon); and tat (tac): Cai Tac canal, Cai Tac bridge, Cai Tac intersection (Cai Rang), Nga Tac canal, Nga Tac bridge (Thot Not), among others.

It is evident that 433 place names associated with typical elements such as “rach”, “vam”, “kênh” (kinh), “cai”, and “xeo” in Can Tho collectively demonstrate the people’s cognitive culture regarding the rich and favourable natural river environment. This environment offers substantial economic potential, fostering the development of rice farming, gardening, aquatic resource exploitation, and stabilisation of livelihoods.

3.2. Place names reflecting cognitive culture of aquatic animals

The river environment, characterised by a dense network of rivers and canals, provides a significant source of aquatic products for the people of Can Tho. Since its formation, the capital of Tran Giang - Can Tho - has been home to numerous dense forests, sedges, and reeds. These conditions are favourable for mosquito breeding. Larvae hatched from mosquito eggs, along with floating animal carcasses, serve as an ideal food source for the cultivation of shrimp and fish. There are 29 place names recording aquatic species present in the riverbeds of Can Tho, as well as craft villages related to aquatic exploitation activities. Some well-known place names include Du Tho canal and Cai Ho canal (O Mon district), Can Tho canal, and Ca Ho canal (Thot Not district). Additionally, otters have been recorded in the area, as reflected in the place name Phe canal (O Mon district).

To capitalise on the local fishery resources, many residents have made a living by fishing in rivers, canals, and estuaries, gradually forming craft villages associated with these activities, such as fishing village (Cai Rang district), cau village, fishing village (Thot Not district), luoi village (Binh Thuy district), day village (Ninh Kieu district), and Du Tho village, which specialises in weaving traps for catching fish, shrimp, and prawns.

Although the river environment is rich and economically beneficial, it is also harsh and poses many potential dangers. When road transport was limited, boat travel along rivers and canals was an effective means of transportation. However, the widespread presence of crocodiles constituted a major threat to the people of Can Tho. Tran Giang was replete with swamps and mudflats, creating ideal breeding grounds for crocodiles. Six place names record the local anxieties concerning this dangerous animal, which persist to this day. Examples include Lung Sau and Lung Sau bridge (Phong Dien district), Dau Sau canal, Dau Sau bridge, Dau Sau estuary, and Dau Sau intersection (Ninh Kieu district).

3.3. Place names reflecting cognitive culture of waterway traffic

The survey results are shown in Table 3.

Table 3. Statistical table of place names reflecting waterway traffic.

Numerical order	Types of place names	Number
1	Place names reflecting perceptions of the nature of water in waterway traffic	23
2	Place names reflecting the laws of waterway traffic	9
Total		32

Source: Author's field survey and documentary database, 2021.

There are 32 place names associated with the cognitive culture of waterway transportation among the people of Can Tho. Residents living along rivers, canals, islands, swamps, and islets often own boats or small canoes for convenient travel, trade, daily life, and in urgent situations such as illness, to ensure prompt transportation. According to S. Nam (2017) [6], boats and canoes function like "legs"; people use them to visit villages, buy tea and cakes, attend weddings and funerals, and to transport midwives and doctors. Even thieves and robbers exploit rivers and canals to arrive unexpectedly and escape swiftly.

Furthermore, except during the heavy rains of the monsoon season, water flows smoothly throughout the year, facilitating convenient boat travel. As noted by the Provincial Party Committee and People's Committee of Can Tho province (2002) [7], "Here, the river is the main traffic artery, and boats and canoes become so important that they are essential". Consequently, awareness of water movement patterns is a vital and urgent necessity for local people to organise their personal lives efficiently and maintain economic productivity.

Waterway traffic, as well as the daily life of the people in the Mekong Delta generally and Tran Giang - Can Tho specifically, is greatly influenced by the ebb and flow of the tide. Although there are deep water channels, the water surface remains calm, without large waves or strong winds, as exemplified by the Binh Thuy Channel (Binh Thuy district). According to H. Minh (2001) [8], an anecdote recounts that in the fifth year of Emperor Tu Duc's reign (Nham Ty 1852), Governor Huynh Man Dat was on a boat tour when he encountered a severe storm upon reaching Linh islet. He discovered a channel with calm waters where the boat could safely shelter from the wind. Secretly praising the terrain as resembling a "lying dragon", he named it Binh Thuy. Since then, many

place names in the area have incorporated Binh Thuy, such as Binh Thuy river, Binh Thuy bridge, Binh Thuy district, and Binh Thuy market. As noted by the Provincial Party Committee and People's Committee of Can Tho province (2002) [7], "In Binh Thuy village, as its name suggests, the river water is gentler and calmer; therefore, people settled early, quickly developed, and it became the homeland of the Can Tho people, a heritage of which later generations are proud". Similar place names appear elsewhere in the southwest region, including Binh Thuy commune (An Giang) and Binh Thuy hamlet (Vinh Long).

However, this area has long contained estuaries and three- or four-way river intersections with whirlpools, posing dangers to boats and canoes passing through. Consequently, experience in navigating rivers and canals is vital. Place names such as Nuoc Van estuary, Nuoc Van bridge, Nuoc Van junction, Bung Binh canal, and Bung Binh bridge (Cai Rang district) reflect the awareness of the river environment by the people of Tran Giang. Nuoc Van Junction, the river estuary in front of Thuong Thanh communal house, has existed for centuries. At low tide, water flows rapidly, creating circular whirlpools (vortices) that make it easy for boats and canoes to capsize. Historically, a large stretch of river existed at the start of the estuary. To avoid danger, boats often slowed for safety or turned back towards Can Tho or downstream to Soc Trang, hence the name Bung Binh canal. The place name Bung Binh also occurs in Tra Vinh province (Bung Binh bridge) and Ca Mau province (Bung Binh hamlet). Furthermore, the depth of rivers and canals is also recorded by local residents through place names such as Cai Sau river, Cai Sau bridge (Cai Rang district), Xeo Sau canal, and Rach Sau Nho bridge (Phong Dien district).

When the people of the Ngu Quang region migrated southward along the East coast to new lands, sailing boats were no longer suitable. The ancients therefore developed small boats capable of easily entering dense forests and weaving through canals to explore the locality. The need for effective transportation in this new terrain necessitated the establishment of conventions and consensus regarding movement. As canal traffic became heavy, numerous dangerous incidents occurred. In addition to relying on experience to respond, people also established rules to ensure convenient travel and to avoid losses and disputes. According to T.H. Duc (1999) [2], at that time, the "Nghi Biếu hầu", who commanded the garrison, issued the following regulations for travelling on waterways:

All boats, regardless of whether the wind or current is favourable or unfavourable, when they come close to each other, they all shout “bat” (commonly called “cay” for going to the left, “bat” for going to the right), then our boat goes to the right, the other person’s boat also goes to the right, following the flow to steer... if they want to avoid each other, the steersman just shouts “bat”... As for shouting “Cay” when the boat reaches the dock, encounters the wind and runs aground, or has an accident, then they shout like that.

Thus, Bat - Cay (cay) refers to the custom of travelling by boat on rivers and canals dating back to the time of King Gia Long. Numerous place names in Can Tho still reflect this custom, including Nga Bat canal, Nga Bat street, Nga Bat bridge (Cai Rang district), Nga Bat canal, Nga Bat bridge, Nga Bat street, Nga Cay canal, and Nga Cay bridge (O Mon district), among others. To this day, the custom is preserved through the folk song:

*“You go to the right and row straight
I turn left and pry the bow of the boat”*

In the southwest region, this custom is frequently reflected in place names, including Nga Bat canal (Kien Giang), Cai Bat Giua canal (Ca Mau), Nga Bat canal and Nga Bat river (Vinh Long), Nga Bat river (Hau Giang), Nga Cay canal (Hau Giang), and Nga Cay canal and Nga Cay river (Vinh Long), among others.

From the primitive river laws of the pioneering period, certain elements were inherited and formed the basis for modern inland waterway traffic regulations. These include rules such as: When two vessels travelling in opposite directions face a risk of collision, the captain or driver must signal to give way; and the vessel travelling upstream must yield to the vessel travelling downstream, among others.

4. Conclusions

The natural environment of the Mekong delta in general, and Can Tho in particular, plays a crucial role in shaping the living environment for its inhabitants,

contributing to the formation of a distinctive river culture for both Can Tho and the broader Southwest region. To survive, develop, explore, and master nature, people have had to accumulate extensive experience and knowledge regarding the laws and characteristics of the rivers in their homeland. The cultural capital embodied in the awareness of the river environment - expressed through 499 place names in Can Tho city - partly demonstrates the sensitivity and adaptability of the local people. This awareness has enabled them both to cope with the challenges posed by the river environment and to harness its advantages for survival and development over nearly three centuries.

COMPETING INTERESTS

The author declares that there is no conflict of interest regarding the publication of this article.

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