Analysis of the Linguistic Landscape of Shops in the Historic Center of Macau Based on Geographical Semiotics

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Abstract. Macau is a city located in the southeastern part of China. It has a colonial history under Portuguese governance for about 450 years. This has made great contributions to Macau for forming a linguistic landscape with three literatures and four languages, which is different from Hong Kong and Chinese Mainland. Existing studies have drawn some conclusions and clarified the situation in this field, but most of the relevant literature focuses on the overall landscape of Macao's linguistic landscape, with no specialized research targeting specific regions or industries. This study, based on the theoretical framework of geographical semiotics, explores the commercial linguistic landscape in the historic center of Macau, which is situated on Macau Peninsula. The collected data indicate that the cultural and national identity are the factors with the most contribution to the linguistic landscape while the industry pillars, the important group of customers and the official linguistic policy are also aspects that have brought impact to it. This study contributes to filling the academic gap of the research on the linguistic landscape research in the historic center and provide some reference to the lawmakers for introducing proper linguistic policy.

Keywords: Macau Historic Center, shops and restaurants, linguistic landscape, geographic semiotics, cultural and national identity

1. Introduction

Macau, located in the southeast part of China, used to be a part of Guangdong Province before the colonial era. The residents there used to employ a special and well-known Chinese dialect called Cantonese as their daily language. Since the 16th century, Western culture and languages have been gradually introduced into Macau, as it underwent more than 400 years of colonial rule under Portugal. After the handover in 1999, Portuguese still enjoys the status of Macau's official language according to the basic law of Macau SAR [1]. Meanwhile, Mandarin has started to be promoted to adapt to the new situation. On the other hand, as an international city and a world-famous tourist city, Macau regards tourism as one of its pillar industries. In this context, English is also widely used in Macau as the international language. These factors have led to the special linguistic landscape that contains Chinese (including both Mandarin and Cantonese), English and Portuguese in Macau. A mass of signs or notices are written in more than one language. The same is true of official documents and shop names.

Existing research on Macau's linguistic landscape remains limited. Zhang conducts research on the linguistic landscape of a famous shopping street in Taipa, Macau called Rua do Cunha. The research collects the names of the shops, other buildings and the streets and the characters on the signs and notices. The results show the linguistic diversity of Macau society and the differences between the official linguistic policy and the de facto situation of the daily language usage [2]. Zheng and Zhai apply CIS method to discuss about the linguistic landscape based on the research on the linguistic landscape of different areas and social fields of Macau [3]. As for the researches about the history and development of Macau's linguistic landscape, Zhang and Luo's research says the construction of the linguistic landscape of one place is under the influence of the competition and compromise of the local SES factors [4]. Zhang and Zhang conduct research in another direction. They study Macau's linguistic landscape during the COVID-19 pandemic. Their results show that Macau's linguistic landscape was undergoing some subtle changes while keeping overall stability [1]. These existing researches includes different perspectives. The research of Zheng and Zhai was conducted in the geographic aspect [3]. Zhang and Zhang conducted their research in the direct of time and period, especially the special period [1].

However, the existing research are all focus on the overall scene of the language utilization of Macau. It is a shame that there is still just few academic research about the linguistic landscape about the shops in Macau's historic center. This has caused the lack of understanding of the linguistic landscape about the shops in Macau and the causes to this landscape. This would prevent the lawmakers from making a suitable and reasonable linguistic policy. That will not be benefit to the protection of Macau's linguistic and cultural diversity. The damage to the linguistic and cultural diversity may cause a harmful influence to Macau's tourism and prevent the local industrial structure adjustment and the diversified development to the local economy. Therefore, this research is going to discuss Macau's linguistic landscape through exploring the condition of the language application of the shops in Macau's historic center. To achieve this academic objective, this study will adopt geographic semiotics-a research method commonly employed in linguistic landscape investigations. Sheng and Buchanan discuss the figures of the aboriginal linguistic landscapes of the Chinese ancient waterfront towns with geographic semiotics. By offering a fresh, context-specific account of the indigenous linguistic landscape within an ancient waterfront town's heritage quarter, their field investigation illuminates rural linguistic landscapes and underscores the value of continued exploration of geo-semiotics and visual semiotics in applied linguistics and sociolinguistics [5]. Alhaider explores the linguistic landscape of the Arab ghetto in New York city with the method of geographic semiotics and filled the blank in the area of the linguistic landscape of Arab communities in America [6].

This research contributes to filling the academic gap in studies on the linguistic landscape of shops in Macau's Historic Center. It is benefit to promoting the concentration to the language usage in Macau's historic center of the society and helping the lawmakers to improve the related laws and rules to protect the linguistic and cultural diversity.

2. Theoretical framework

According to Scollon and Scollon, geographical semiotics is "the study of social meaning of the material placement of signs" [7]. Geographic semiotics examines how diverse sign systems—language, symbols, physical objects, and historical traces—are woven together with spatial arrangements to allow discourses to create meanings within specific moments and places. As noted by Sheng and Buchanan, the framework of geographical semiotics can be categorized into three core dimensions [5].

The first-dimension centers on interaction. The study would evaluate the interaction between the text and the cultural atmosphere by measuring the social and cultural space between the writers and their readers through a series of social activities.

The second dimension focuses on visual perception. This part makes the study pay attention to a series of material medias of optic language. All in all, the focal point of this framework is how the visual texts and images interact with, influence, or even guide the daily activities in the real world.

The third dimension is place semiotics, which refers to the integration of spatial planning and cultural geography [7]. It includes distinguishing the environment by one's body sense, and typology of spaces to help one to understand the space organization.

Collectively, the three parts of the framework of geographical semiotics can be handy tool to help analyze the connotation and extension of the symbol in the world and provide a practical route to analyze the linguistic landscape of a place based on the data [5].

The language usage of the shops can be an extremely representative field for the study to observe and analyze for the local linguistic landscape research. As for exploring that in an inclusive social and cultural atmosphere like Macau, collecting and analyzing the data about the language employment of the shops, especially those in the historic center, as the historical factors play a crucial role in the form and development of the linguistic landscape of Macau. The present study will therefore analyze and discuss the linguistic landscape of the shops in the historic center of Macau base on the data regarding the language in the local shops.

Methodologically, the study applies two components of geographical semiotics. First, the visual semiotics would be applied by the research. In the research, the characters written on the sign and the menu of a shop or restaurant would be under analyzing. The linguistic meaning of their appearance and applying would be discussed. Second, the place semiotics would also be employed in this research. The research would analyze and distinguish the language usage of different shops and discuss the reason behind the differences. Besides, under the place semiotics framework, the written language on the signs, the language employed on the menu, the posters on the wall, even the character on the bill would be collected as data for analysis.

3. Research design

3.1. Data collection

This research employs qualitative method. To achieve the academic goal, this research takes the language using condition of the shops and restaurants as the subject. This would contain the languages on signs, menus, ornaments on interior and exterior walls, and even languages on the price tags or tableware. Photos will be used to present the specific landscape. In addition, under the framework of place semiotics, the researcher would select districts with distinctive characteristics as the focal area for the field investigation. As for the selection of the location, the researcher would select four different areas in the historic center of Macau. The detail of the place selection is presented in Table 1.

Table 1. The details and reasons of the place selection for the research

N o.	Locatio n	Reasons
1	Rua de Cinco de Outubro	Rua de Cinco de Outubro is a famous old street with a mass of classic shops and restaurants filled by their old neighbor every day in the historic center of Macau. This block can better reflect the most authentic traditional street life of the resident of Macau. Thus, it can present the most representative and the most general linguistic landscape of Macau society.
2	Rotunda de Carlos da Maia	Rotunda de Carlos da Maia is located in the center of a Southeast Asian community. Most of the residents there are from the Burmese ethnic group. Thus, that district is known as the mini-Yangon in Macau. In that case, this area can better reflect the existence of the factor from the southeast Asian culture in Macau's society and culture.
3	The Boarder Gate Square	The Boarder Gate Square located in the border between Macau and Chinese Mainland. As the busiest border port in the world, thousands of Macau or mainland Chinese residents depart from or arrive in Macau through it every day. In that case, this area can directly present the landscape of the cooperation and communication between Macau SAR and the Chinese Mainland or the Chinese central government.

(Notes: Table 1 continue)

3.2. The research objects and research questions

This study aims to analyze the status of each language in Macau's Historic Center shop linguistic landscape by comparing the visual presentation of different languages. The specific dimensions of analysis are as follows.

First, the total types of employed languages. It contains what types of languages are employed in the linguistic landscape of shops in the Historic Center of Macau, and are there differences across distinct areas (Rua de Cinco de Outubro, Rotunda de Carlos da Maia, and Border Gate Square). By observing and analyzing the language type the shops or restaurants in a particular block or neighborhood use, the linguistic landscape of this district can be clearer and the relationship between the linguistic landscape and the social ecology would be more distinct.

Second, the typesetting order for each language. This part includes the location and order of the different languages on the signs and other texts of the stores. By inspecting the order of the different languages, the relative importance of each language will become evident.

Third, The differences in character size. The difference of the size of characters can show the difference between the positions of each language. In that case, through the different status of the languages, the main type of the customers of the stores and even the main type of the residents in the community can be inferred.

Last, how do the linguistic landscape features (language types, visual presentation) interact with the local social context (e.g., population composition, tourist flow) to create meaning? Within the framework of visual semiotics, this study will further explore how the above linguistic-landscape features create meanings and impacts for customers and the wider community, and analyze the interplay among the linguistic landscape, customers, and the community.

4. Results and discussion

In this section, the linguistic landscape of shops in Macau's Historic Center is analyzed within the framework of geographic semiotics. The specific content is presented as follows.

4.1. The categories of the languages

The study has explored and recorded the language-using condition of the shops and restaurants in the historic center of Macau. The data are come from Rua de Cinco de Outubro, Rotunda de Carlos da Maia and The Boarder Gate Square. Through analysis, some commons and differences were presented out.

Firstly, there is a common among those. 242 of the signs of the 300 shops are written in both Chinese and Portuguese. This has reached a percentage of 80%. In addition, it is worth noting that the Chinese characters on most of them are traditional Chinese characters, but not simplified ones which are widely and officially employed in Chinese Mainland. For example, the drug shops and holes on the wall often use both traditional Chinese and Portuguese characters. The Figure 1 shows the sign of a little restaurant near the Rotunda de Carlos da Maia, which has Chinese and Portuguese on it.



Figure 1. The sign of a little restaurant near the rotunda de carlos da maia

These phenomena stem from Macau's colonial rule under Portugal. Since the year of 1964, simplified Chinese characters started to become the official characters of People's Republic of China and started to get promoted. However, Macau remained under Portuguese administration at that time, where Portuguese was the sole official language [4]. Even after Macau's handover in 1999, the Traditional Chinese characters were still widely used. In accordance with, the Basic Law of Macau SAR, Chinese and Portuguese are both official languages of Macau [8]. Thus, both Chinese, especially the Traditional Chinese characters in written Chinese, and Portuguese are widely used in Macau, including the shops in its historic center, today.

Secondly, linguistic variations exist across the three selected areas. Around the Rotunda de Carlos da Maia, there are 5 of 100 of the shops signs have Burmese or Tagalog characters on them. This reaches the percentage of 5%. That is because that area is a neighborhood with a mass of Burmese ethnic group members and Filipino employees living there. As for the district around the Border Gate, 90% of the shops apply both traditional and simplified Chinese characters at same time. There are even some shops and advertises use only simplified Chinese characters, especially the gift shops. That is because the shops near the border mainly serve the tourists from Chinese Mainland. There is nothing very special on the Rua de Cinco de Outubro, most of the signs of the shops or restaurants apply traditional Chinese characters and Portuguese. Beyond the above observations, another notable finding is that 63 local shops or restaurants in the sample, which reaches the percentage of 20%, also have English on their signs or menus. This has reflected the high position of English and the internationalization of Macau.

Through the analysis above, it is evident that the linguistic landscape has a tight attachment with the local special. The economic pillar, the population composition and the cultural tradition can be the factors make contribute to it. This finding is similar to that of Zhai and Zheng. They find that the use of commercial language is more closely linked to economic needs than official language [3].

4.2. Layout order and character size of languages

Through observation and analysis, the research discovered the characteristics of the typesetting used by the stores. Almost every shop or restaurant selected Chinese characters as the biggest on their signs or other texts. The Portuguese characters are often placed below or above the Chinese. However, their sizes usually are the half of Chinese or even smaller than that. There are variety of factors that have triggered this scenario. A paint shop on the Rua de Cinco de Outubro is a suitable example for this. Figure 2 shows a paint shop on the Rua de Cinco de Outubro, with a sign with Chinese and Portuguese. Chinese characters are at the middle of the sign with big sizes and big room, while Portuguese is on the top with small sizes and narrow room.



Figure 2. The sign of a paint shop on the rua de cindo de outubro

Since the ancient time, Macau is a part of China. Chinese have occupied the most of Macanese all the time [9]. Even during the Portuguese colonial era, although Portuguese was the only official language, it was only employed by the government officers and the upper-classes. Chinese is still widely used in the folk. After the handover in 1999, in order to satisfy the requirement of communicating and corporation with Chinese Mainland and the central government. Macau SAR government has introduced policy to promote the usage of Chinese.

Through the observation and analysis, a conclusion that the typesetting order and the sizes of the characters of different languages are influenced by the official factors, like linguistic policies, together with the cultural and nationality identities is drew in this study.

4.3. Color usage of text in different languages on shop signage

According to the result of the data analyze in this study, there is few gaps in the color usage between different languages. The color for the characters in Portuguese or English is as same as those in Chinese. One reason behind this is about the forming of Macau residents, society and culture. The 2021 census result of Macau says that there are 10.6% of Macau population are not Chinese [10]. These includes Portuguese, Filipino descent and people from other countries or territories. These non-Chinese residents formed an important force in Macau society. Thus, the equality between Chinese and non-Chinese residents and cultures has been attached with importance. Besides, this is also what the article 9 in Chapter I in Basic Law of Macau SAR says [8]. The match of the colors of the characters in different languages is benefit for present the equality between Chinese and non-Chinese. The other reason for that is the requirement for Macau's position of internationalized

tourist city in the world. The linguistic landscape, especially that on the stores, must serve this demand. Figure 3 presents the sign of a shop sales baby products near Rotunda de Carlos da Maia.



Figure 3. A shop sales baby products near rotunda de carlos da maia with a sign which has pink Chinese and portuguese characters on it

Meanwhile, however, there are also some shops persuade multicolor on their signs. For instance, Figure 4 presents a Vietnam cuisine restaurant with characters in two languages and three colors on its sign also near Rotunda de Carlos da Maia.



Figure 4. A Vietnam cuisine restaurant with characters in two languages and three colors on its sign also near Rotunda de Carlos da Maia

The research result proves that the colors of the characters usually would not have gaps between the languages. This has highlighted the equality between the nationalities, ethnics and the cultural backgrounds. This can be no more important in the modern society, especially the highly internationalized ones just like Macau. Zhai and Zheng also express their point that the openness and equality are contained in the various linguistic landscape and allow the tourist to have a new insight to this place in their research in 2020 [3]. This point is similar to the conclusion drew in this paper.

5. Conclusion

This research focuses on the linguistic landscape of the stores in the historic center of Macau. It is conducted under the framework of geographic semiotics. The relationship between the linguistic landscape and its influential factors is under discussion in this paper. The research has enriched the exploration in the field of the commercial linguistic landscape of the historic center of Macau.

Through this research, the factors that are able to cause impact on the local linguistic landscape and how these factors impact it has been revealed. Above all, the cultural tradition and the nationality identity are the most influential ones on the local linguistic landscape. They have decided the language categories the shops or restaurants applied and which one is the most important. Meantime, the economic pillars and the main customers of the shops also have significant power to the details in the local linguistic landscape.

Although this study has achieved its academic objectives, it is not without limitations. First, the research objects were confined to commercial establishments such as shops and restaurants, while non-commercial entities-including administrative organizations and government signage, to name but a few-are not included in the investigation. Second, in terms of geographical scope, the study only sampled locations within the Historic Center of Macao (situated on the Macao Peninsula) and did not extend to areas such as Taipa, Cotai, and Coloane. Future research intends to focus more on non-commercial organizations and institutions, while expanding the geographical coverage to include Taipa, Cotai, and Coloane.

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