

Research on Urban Furniture Design Based on the Identification of Cultural Elements in Southern Fujian



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Abstract: This study aims to address the complexity of integrating multi-local cultural elements into urban furniture design by systematically identifying, classifying, and prioritizing cultural features specific to the Southern Fujian region. Using the Anping Bridge Qiaotou Square in Shuitou Town as a case study, the research seeks to enhance the accuracy and cultural responsiveness of urban furniture planning. Methodologically, the study employs hierarchical theory and inductive methods to generalize cultural elements into a structured system comprising three levels (tangible, behavioral, and intangible) and five categories, totaling 35 elements. The Kano model and importance questionnaires were distributed to 473 respondents (including local residents, tourists, and designers) to quantify perceptual needs and importance ratings. Statistical tools such as SPSS were used for reliability and factor analysis. The results identify two exciting elements (academy and stagecoach), two expectant elements (stone bridge and arcade), and two necessary elements (bridge repair and martial arts), each with distinct public importance rankings. A three-tier design strategy is proposed: differentiating core-axis-node spaces at the layout level, applying narrative reconstruction and collage at the monomer level, and emphasizing characteristic rhythm and harmony at the scene level. In conclusion, this approach provides a systematic and publicly-informed framework for incorporating regional cultural elements into urban furniture design, enhancing cultural identity and user satisfaction. The methodology offers replicable strategies for culturally-grounded urban design, supported by empirical public demand analysis.

Keywords: Cultural Elements; Cultural Level; Urban Furniture; Kano Model; Importance

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1 Introduction

Urban furniture is a kind of public facility that is widely used in outdoor space and provides public services for citizens [1], which has various characteristics such as public, cultural, social and landscape. At present, when cultural tourism integration, community economy, aging-friendly renovation and sustainable development are advocated, urban furniture should shoulder new responsibilities and missions for urban image, intelligent innovation, social equity and ecological protection [2]. Urban

furniture realises the interpretation and expression of regional cultural characteristics by effectively connecting various regional cultural elements. Therefore, in-depth, systematic and scientific differentiation and identification of local cultural design elements is the key to the proposed urban furniture design strategy. At present, the design of local cultural elements in southern Fujian has been explored in the areas of interior furnishings [3], cultural and creative products [4], interior furniture [5], symbols

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[6], and corporate image [7], but the use of them in urban design is relatively rare. Existing research is not only limited to the extraction of elements from a certain aspect of the culture of southern Fujian, but also with the help of the designer's subjective judgement on the elements of the trade-offs, and did not combine the different aspects of urban furniture design to put forward a systematic application of the strategy in the identification of the cultural elements of the depth of excavation is not enough, the quantitative comparison of the lack of problems. In addition, in the field of urban furniture design, there are few quantitative studies on citizen satisfaction, and most citizens are excluded from the decision-making process of urban square planning [8]. This paper takes the Anping Bridge Qiaotou Square in Shuitou Town, Nan'an City, Fujian Province, as a case area to develop urban furniture design. Anpingqiao Qiaotou Cultural Square is located in the east of Shuitou Township, covering an area of 3540 square metres, and is connected to the old Shuitou neighbourhood, which is rich in traditional ancient houses and riding buildings in Southern Fujian, in the west, and Anpingqiao Bridge, which is a World Heritage site and a national key cultural relics protection unit in the east, and it is an important window of the culture of Southern Fujian for external display. This study focuses on: how to excavate the cultural elements of southern Fujian region? How to classify and stratify the identification of cultural elements in southern Fujian region with the help of mass survey and quantitative analysis tools? Based on this, how to propose a systematic strategy for applying the cultural elements of southern Fujian region to urban furniture design?

2 Hierarchical Summarisation of Cultural Elements in the Southern Fujian Region

2.1 Cultural Connotation of Southern Fujian Region

The culture of Minnan originated from Chinese culture. It was produced by the gradual entry of Han people into Fujian and the communication and integration with the ancestors in Minnan region during the Han and Jin dynasties [9]. Southern Fujian in a narrow sense usually refers to the three administrative regions of Quanzhou, Zhangzhou and Xiamen nowadays, while in a broader sense, it covers the southern part of Fujian Province [10]. The cul-

ture of the southern Fujian region is a regional spiritual force that consists of the convergence of a variety of values. It has exerted a strong influence on the group consciousness, lifestyle and mass behaviour of the entire Xiamen-Zhangquan region and most of Taiwan, profoundly reflecting multicultural characteristics such as pluralistic vernacular concepts and rich and diverse folk beliefs. Culturology points out that: physical culture is a cultural entity that can directly touch one's own feelings; behavioural culture is a cultural connotation feature contained in various daily activities of human beings; and mindfulness culture is a kind of internalized values and inner feelings [11]. Based on this, the various material entities within the geographical scope of southern Fujian and the social behaviours of the aboriginal people of southern Fujian carried by them, as well as the spiritual ideals of southern Fujian embedded in them, with the behavioural rituals and local customs as the cultural carriers, together constitute the "tangible-behavioural-intangible" three-layered cultural entity within the geographical scope of southern Fujian. Intangible" three-layer system.

2.2 Generalisation of Cultural Elements in Southern Fujian Region

At a time when the innovation and inheritance of regional culture has been widely concerned, Minnan culture provides rich inspiration sources for modern design [9]. Based on the cultural elements of southern Fujian region in the case area, the hierarchical induction is carried out to construct the cultural hierarchy of southern Fujian region. Southern Fujian regional culture mainly involves five major sub-cultures such as Haisi category, famous people category, non-heritage category, clan category and overseas Chinese category. Specifically, it includes: reflecting the red wall and red tile, brick and stone reflecting the use of colour and materials, land and water logistics and trade activities and the habit of worshipping the god of the sea, using the ancient post, Haichaoan, the ancient boat bay, Anping Bridge as a carrier to demonstrate the awareness of the marine economy of the people of southern Fujian and the sea culture of the bold and daring to work hard. Carrying out folk activities such as Zheng Chenggong's beliefs in Fujian and Taiwan, "Mid-Autumn Pokcake" Fun Games, and Zhu Zi Ceremony, with Zheng Chenggong's military practice place and Zhu Zi Ancestral Hall as the carriers, highlights the admiration for the martyrs and literary giants, as well as the respect for the culture and the importance of etiquette. Overseas Chinese culture, on the other hand, takes the riding street as its form of

expression, highlighting the fusion and diversity of Chinese and Western elements. Through the lines and texture patterns of its façade, it recounts the stories of foreign exchanges and commercial activities of the people of southern Fujian, and displays the spirit of the overseas Chinese businessmen who are selfless in serving the country and who are willing to give to charity and goodwill. The clan culture takes the cluster of ancient ancestral halls and the Shuangling Temple as the carrier, displaying the architectural lines and morphological features of the curved and straight, carved and painted beams, and carrying out the faith and customary activities of worshipping the grand ceremony of ancestors and the Bodhisattva of the Shuangling with the spiritual ideals of family unity and the township sentiments of feeling and good deeds included. The non-heritage culture, on the other hand, is carried out by the Chengbian Paper Cutting Studio and the Ezaki Lion Formation Martial Arts Hall, which embody the blessing of the newlyweds and the desire to practice

martial arts to strengthen the body by making use of the functions of the dowry for local weddings and activities such as lion and lion performances, with the interesting forms of both the beautiful patterns and the splendid colours of the props such as the paper-cutting plate flower, the lion's head embroidered ball, and the weapons and flags. To sum up, there are three levels, five categories and 35 elements in the construction of the cultural element system of Southern Fujian, as shown in Table 1.

In conclusion, Minnan culture demonstrates distinct regional characteristics and profound artistic value. By employing design approaches to express Minnan culture, we not only help preserve cultural diversity but also stimulate the creative industry's growth, injecting fresh momentum into economic development [12, 13]. This ultimately achieves mutual benefits through the co-production of cultural and economic value in the region, thereby enhancing the sustainable development and continuity of Minnan's cultural heritage [14].

Table 1 System of Cultural Elements in Southern Minnesota (Source: Author's own drawings)

Cultural connotation	Cultural level	Cultural elements	
Hai Si Culture	Physical culture	Stagecoach Elements	
		Temple Element	
		Ancient Boat Element	
		Stone Bridge Element	
		Car and Horse Element	
	behavioural culture	Poseidon Element	
		Porcelain Element	
		Market Element	
		Migrant Element	
		Praying for the Wind Element	
Overseas Chinese Culture	Culture of Mind	Nanyang Element	
		Bridge Repair Element	
	Physical Culture	Riding Elements	
		Decorative Elements	
		Shop Element	
	Behavioural Culture	Snacks	
		Overseas Chinese Businessmen	
		Ancient Alter Element	
		Ancestral Elements	
		Ancestor Element	
clan culture	Behavioural Culture	Holy Water Element	
		Clan Element	
	Mindfulness culture	Medical Element	
		Sailor elements	
		Shuyuan Element	
	Physical Culture	Pok ánon Element	
		Lecture Element	
		Success Element	
		Zhu Xi Element	
		Plate Flower Element	
Celebrity Culture	Behavioural Culture	Lion Dance Elements	
		Wedding Element	
	Mindfulness culture	Martial Arts	
		Love	
		Loyalty	
	intangible cultural heritage	Behavioural Culture	
		Mindfulness culture	

3 Demand Identification of Cultural Elements in the Southern Fujian Region

3.1 Questionnaire Survey

The purpose of this survey is to obtain the subjective needs of the public for the 35 cultural elements with the help of the Kano questionnaire and the importance questionnaire, on the basis of perceptual need grading and importance grading, and in combination with the results of the survey. The survey instrument is a web-based questionnaire, based on the Questionnaire Star platform. Considering that historical and cultural blocks have the characteristics of diversified user groups and diversified needs of public facilities [15]. In order to have a more comprehensive understanding of the subjective needs of the public for the cultural elements, the survey covered three groups of people, namely local residents, foreign visitors and designers. Local residents are put to the residents of

Shuitou neighbourhoods with the help of Shuitou grass-roots community managers and local enthusiastic citizens; foreign visitors are put to the tourists coming to Shuitou and Nan'an with the help of the local cultural and tourism authorities; and the designers are put mainly through the organisation of colleges and universities, design institutes, and other professionals who have been involved in the planning or designing of projects for areas in southern Fujian. The survey was conducted in the form of Kano questionnaire, and a total of 473 valid questionnaires were collected. Among them, 140 questionnaires for local residents, 218 questionnaires for foreign tourists and 115 questionnaires for designers. The situation of the survey respondents is shown in Figure 1. The valid number of questionnaires of importance is 210, and the composition ratio of the respondents is consistent with that of the KANO questionnaire. Using the reliability analysis and factor analysis tools of SPSS, the alpha coefficients of the positive and negative attitude questions of the KANO questionnaire and the questionnaire on the degree of importance were above 0.9, and the KMO detection value was above 0.8, which allowed for further analyses.

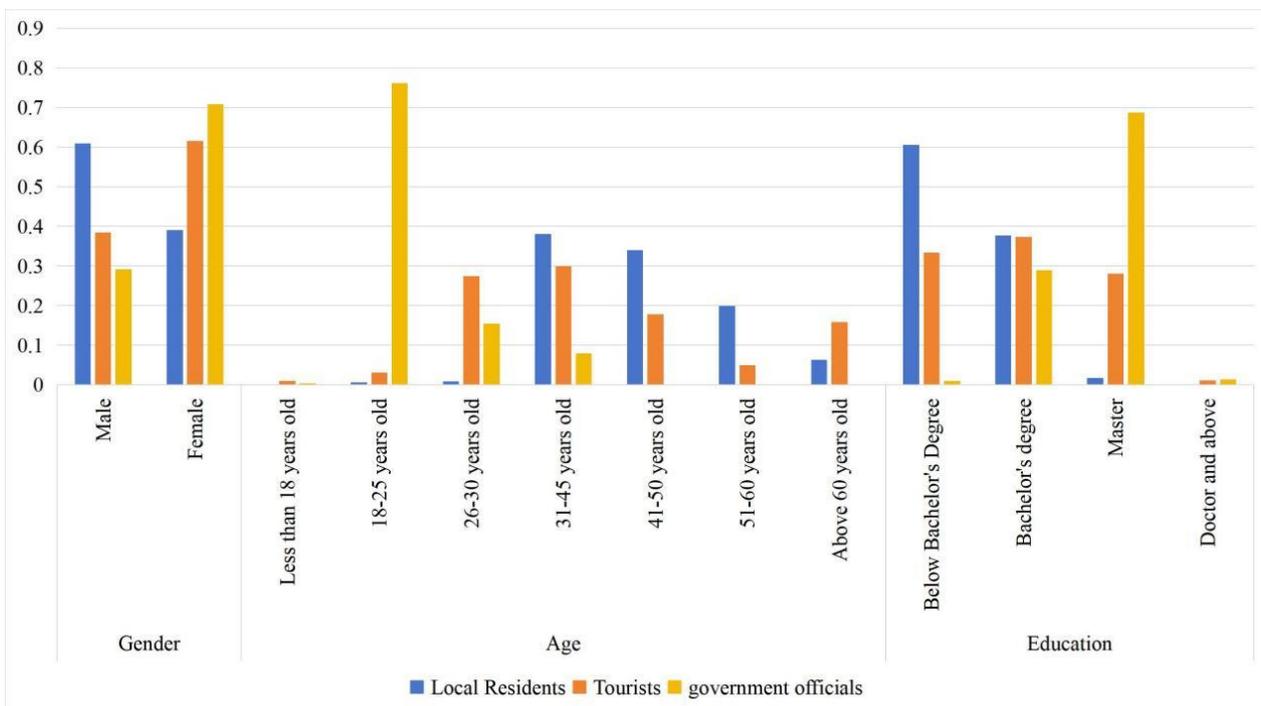


Figure 1 Composition of survey respondents (source: author's own drawing)

3.2 Questionnaire Analysis

3.2.1 Classification of Perceptual Needs of Cultural Elements

The presentation of cultural elements helps tourists to

establish a preliminary connection with the local area, creates an objective environment for tourists to experience culture, and is the basis for subsequent experience and element identification [16]. First of all, the perceptual demand survey is carried out for the public with the help of Kano questionnaire, the number of questions in Kano questionnaire coincides with the number of types of cultural ele-

ments. Each question consists of two questions, one positive and the other negative, asking the public to make attitude choices on the presence or absence of certain cultural elements in the design of urban furniture in southern Fujian. Each question gives 5 choices, and the public is required to choose the one that best meets their own preferences.

Secondly, the collected questionnaires were examined one by one based on the two-way evaluation system between the cultural elements and the subjective satisfaction of the survey respondents [17]. Frequency statistics were conducted for the cultural elements involved in the survey, including the Attractiveness Type (A), Necessity Type (M), Expectation Type (O), Neutrality Type (I), Questionability Type (Q), and Reversal Type (R). Once the statistics were completed, the cultural elements of the problematic type (Q) and the reversed type (R) were excluded from the data.

Again, the Better-Worse coefficient analysis proposed by Bergel [18] was used by substituting the frequency of occurrence of each cultural element type in (1) and (2) calculations, respectively.

$$Better(B_s) = \frac{A + O}{A + O + M + I} \tag{1}$$

$$Worse(W_s) = \frac{O + M}{A + O + M + I} \tag{2}$$

Where the Better coefficient is positive, indicating that the degree of fulfilment of a cultural element is added after fulfilment; the Worse coefficient is negative, indicating that the degree of fulfilment is reduced after a cultural element is not fulfilled; and a, o, m, and i denote the correspondences of the frequency of occurrence.

Finally, using the Better coefficient as the horizontal coordinate value, the Worse coefficient as the vertical coordinate value, and the average value of the Better coefficient and the Worse coefficient as the origin of the coordinate system [19], the quadrant identification of the need categories was carried out, and is shown in Figure 2. The results show that the charisma-type need involves the two elements of the academy and the stagecoach station, and the expectation-type need covers the stone bridge, the riding tower, the lion dance, the old house, the decoration, the market, the temple, the praying for wind, the water army, the lecture, and the cultural element, and so on. The results show that the charm-type demand involves two elements, namely the stone bridge, riding tower, lion dance, ancient house, decoration, marketplace, temple, praying for wind, navy, lecturing, marriage custom, Fujian and Taiwan, and ancient boat; the essential demand involves seven elements, namely bridge repair, martial arts, business, Zhu Zi, love, Buddha's body, and healing; and the non-differentiation-type demand involves thirteen elements.



Figure 2 Categorical identification of cultural elements based on the Kano questionnaire (Source: Author's own drawing)

- E1: Nanyang; E2: Immigration; E3: Snacks; E4: Sacred Water; E5: Poseidon; E6: Ancestor Sacrifice; E7: Loyalty; E8: Overseas Chinese Merchants; E9: Clans; E10: Bocai; E11: Carriage and Horses; E12: Porcelain-Burning; E13: Paper-Cutting; E14: Healing; E15: Love; E16: Buddha's Body; E17: Repairing Bridges; E18: Merchants' Firms; E19: Stagecoach Stations; E20: Zhutzi; E21: Academy; E22: Fujian-Taiwan; E23: Marriage; E24: Martial Arts; E25: Lectures; E26: Temples; E27: Ancient Boats; E28: Praying for the Wind; E29: Markets; E30: Maritime Forces; E31: Decoration; E32: Lion Dance; E33: Stone Bridges; E34: Cavalry Buildings; E35: Ancient Alterations.

3.2.2 Grading of Importance of Cultural Elements

First, the importance questionnaire was administered. The scale of "1-5" represents "very unimportant", "unimportant", "average", "very important", "very unimportant", and "average" respectively [20], "very important", "very unimportant" and so on [12]. Secondly, the rating materials were extracted from the returned questionnaires and substituted into (3) for calculation.

$$w_i = \sum_{s=1}^5 g_s * p_s \tag{3}$$

w_i is the initial importance of the i th cultural element; g_s is the s th level evaluation score of the i th cultural element in the questionnaire; p_s is the frequency of occurrence of the corresponding evaluation score g_s .

Once again, considering that the cultural elements of the different perceptual need categories have an impact on the degree of importance, in order to achieve a total ranking of the degree of importance of all needs, the categories derived on the basis of the previous section are needed to adjust the initial degree of importance. The formula for adjusting the importance degree w_i' is [20]:

$$f_i = \max(|B_{S_i}|, |W_{S_i}|) \tag{4}$$

$$p_i = m_i * \ln(1 + f_i) \tag{5}$$

$$w_i' = \frac{w_i * p_i}{\sum_{i=1}^n w_i * p_i} \quad (i = 1, 2, \dots, m) \tag{6}$$

Where w_i is the first measured importance of the i th cultural element; f_i is the adjustment factor, the value of which is the maximum of the absolute values of B_{S_i} and

W_{S_i} ; m_i is the adjustment coefficient corresponding to the categories of A, O, M, and I, and takes the values of 1.5, 1, 0.5, and 0.

Finally, using the slope value A, the improved importance of each group of cultural elements with importance level W_i is calculated. The formula for this is [12]:

$$w_i'' = \frac{w_i * a_i}{\sum_{j=1}^m w_j * a_j} \quad (j = 1, 2, \dots, m) \tag{7}$$

$$a_i' = \frac{B_{S_i} - W_{S_i}}{e - 1} \tag{8}$$

$$a_i'' = B_{S_i} - W_{S_i} \tag{9}$$

$$a_i''' = \frac{e * (B_{S_i} - W_{S_i})}{e - 1} \tag{10}$$

Where a_i' refers to the value of the slope of category A; a_i'' refers to the value of the slope of category O; a_i''' refers to the value of the slope of category M; w_i is the first measurement of importance; and j is the number of cultural elements in the Kano category to which need i belongs.

Finally, the 35 cultural elements were ranked overall and within groups (i.e., within each type of subgroup) to adjust the importance and improve the importance values, as shown in Table 2. The order of importance in the glamour-type demand was: academy > stagecoach station; the order of importance in the expectation-type demand was: stone bridge > cycling tower > lion dance > ancient house > decoration > marketplace > temple > praying for the wind > navy > lecturing > marriage > min-taiwan > Ancient ships; the order of importance in the essential needs is: bridge repair > martial arts > commerce > juice > love > Buddhist body > medicine.

Table 2 Ranking of the importance of cultural elements (source: author's own drawing)

Cultural Elements	Classification	Initial Importance	Adjusted Importance	Improved Importance	Within Group Ranking	Overall Ranking
Shuyuan Element	A	3.55238	0.06860	0.01989	1	1
Stagecoach Element	A	3.57143	0.06678	0.01785	2	2
Stone Bridge Element	O	4.31905	0.06625	0.05282	1	3
Cavalcade Element	O	4.12381	0.06494	0.05244	2	5
Lion Dance Element	O	4.28095	0.06091	0.05169	3	6
Ancient Alcove Element	O	3.86190	0.06527	0.04996	4	4
Decorative Element	O	3.99048	0.05464	0.04603	5	9
Market Element	O	4.21905	0.05768	0.04566	6	7
Temple Element	O	4.30952	0.05515	0.04371	7	8
Praying for the Wind Element	O	4.15238	0.05260	0.04127	8	10
Sailor's Army Element	O	3.76190	0.04713	0.04120	9	13
Lecture Element	O	4.15714	0.05204	0.04089	10	11
Marriage Element	O	4.19524	0.05137	0.04076	11	12
Fujian-Taiwan Element	O	3.73333	0.04646	0.03631	12	14
Ancient Boat Element	O	3.50000	0.04460	0.03475	13	15

Cultural Elements	Classification	Initial Importance	Adjusted Importance	Improved Importance	Within Group Ranking	Overall Ranking
Repairing Bridges Element	M	4.15714	0.02216	0.06005	1	18
Wushu Element	M	3.73333	0.02250	0.05912	2	16
Merchants Element	M	3.75238	0.02244	0.05662	3	17
Zhu Zi Element	M	3.64762	0.02106	0.05572	4	19
Love Element	M	3.78095	0.02050	0.05428	5	20
Buddha's Body Element	M	3.60000	0.01903	0.05070	6	21
Medicine Element	M	3.48571	0.01789	0.04828	7	22

3.2.3 Questionnaire Conclusion

Based on the results of the classification of the perceptual needs and the ranking of the importance of each cultural element, combined with the actual situation of each element in the case area, the following conclusions are drawn from the trade-offs of the specific application of the cultural elements: Firstly, the inheritance of the use of cultural elements such as the bookstore and the stagecoach is encouraged to stimulate the public's perception of surprise. The element of excitement demand is a cultural element that is worth spending great efforts to invest in, because once the cultural element that excites people is satisfied, the public's perceived satisfaction with culture can be greatly improved. Although the celebrity culture behind the elements of the academy and the stagecoach is widely known, the figure of Zhu Zi lecturing and setting up tents has long disappeared from the clouds of history, and is even more untraceable in reality. Once the design of the celebrity culture elements, it is bound to reflect the cultural voice of the people to a greater extent, and bring greater surprise to the people. Secondly, the emphasis on the key use of cultural elements such as stone bridges and cycling floors is in line with the positive expectations of the public. Expectation-based cultural elements have a positive correlation with the satisfaction of the public's cultural perceptions, and once there is a deficiency in a certain area, it will result in a decrease in the satisfaction that needs to be continuously reflected in the design. The Anping stone bridge, the riding tower and its architectural decorations, or "born in the city, grew up in the city", or "travelling in the city, enjoying the city", are the key elements that the public likes to see, and they are also the important carriers of constructs in the public's cultural cognition of the southern Fujian region, and it is even more important to look forward to their transformation in the design. It is also an important carrier of constructs in the public's cultural cognitive system of southern Fujian, and is expected to be transformed in the design. Thirdly, it attaches importance to the effective use of the basic cultural needs of citizens, such as the effective use of bridge repair, martial arts and other cultural elements. Necessary

cultural elements are the basic needs in the minds of the public, and once they are not reflected, it will result in a significant drop in satisfaction, but reflecting too much also has no obvious effect of enhancing satisfaction. The story of building the Anping Bridge, which is closely connected with the rise and fall of the ancient town of Shuitou, is still the source of the mind that inspires people in the southern Fujian region to return to the basics and create miracles. The prestigious Jiangzaki lion formation, has long been integrated into the public life, living cultural heritage, deeply rooted in people's hearts.

4 Design Application Based on the Identification of Cultural Elements in Southern Fujian Region

Urban furniture design is a service-oriented, practical, systematic, and socially engaged creative activity that centers on human needs, aims to solve real-world problems, utilizes product systems as implementation tools, and employs public space creation as its foundation [21]. Therefore, the application of Minnan cultural elements in urban furniture design unfolds through three dimensions: product design, layout design, and scene design.

4.1 Layout Level: Strong Core, Axis and Nodes

Urban furniture design Anping Bridge Qiaotou Square is mainly designed around 6 public spaces. Firstly, the exciting cultural elements are mainly applied to the cultural activity square of the waterfront garden. The Cultural Activity Square is located in the centre of the whole Qiaotou Square planning area, which is the convergence area of the pedestrian flow connecting Anping Bridge and Shuitou Old Street; the waterfront garden is located in the waterfront space on both sides of the Wuli Qiaotou, which is the most intuitive feeling of the charm of the cultural landscape of the waterfront interface. The centralised inheritance and application of the excitatory cultural ele-

ments will help to stimulate the public's sensory charms and improve the satisfaction level. Secondly, the Old Street Cultural Bazaar and the landscape promenade along the road are the main applications of the expectation-type cultural elements. The Old Street Cultural Bazaar is located at the entrance gateway of Shuitou Old Street, with pleasant spatial scale and friendly walking environment, and it is the axial space of streets and lanes with a certain spatial depth; the landscape corridor along the road relies on the pavements on both sides of the coastal road and greening to form a continuous landscape space. The application of expectation-type cultural elements in this area can strengthen the continuity of the elements' application and continuously satisfy the public's expectation of the cultural experience and the advantages of the spatial characteristics. The use of spatial characteristics is also an advantage. Finally, the essential cultural elements are used in gardens and entrance green spaces. The street park and the entrance green space are both located in the central green isolation zone of the main traffic road, the urban furniture can be laid out in a small and precise space, which is a small landscape node that can easily show the culture of southern Fujian to the outside world. Based on this, it is possible to make use of the geographical advantage to respond to the public's necessary needs.

4.2 Monolithic Level: Narrative, Multi-Reconstruction and Collage

The design of the urban furniture units in each sub-district is further developed on the basis of the urban furniture layout design 2 Firstly, the use of excitatory elements focuses on combining the two aspects of "story conveyance" and "information continuation". The design of flower boxes, vignettes, and landscape lights are combined to form a focal point for communicating the storyline of the lecture. Taking the bookcase, paperweight, briefcase and pen holder commonly used in the academy as the source of inspiration, it triggers the resonance of the public's humanistic memory; taking the lantern of the post station, the green bricks of the post road, the post horse and the post pavilion as the form carriers, and combining them with the nodes of the trail for the design of the street lamps, the pedestrian walkway, the resting pavilions and other urban furniture, it continues the historical information of the Shuitou Old Post Road and at the same time, it also integrates the historical and cultural information of the old post road along the route, such as the origins of the names of the places, the major events, the poems and texts of the literary figures, and so on. The second is to use the

"Deconstruction" as the basis for the design of the city furniture. Secondly, the application of desired elements with the focus on "deconstruction and extraction" and "reorganisation and translation". By deconstructing and extracting the forms of stone bridge pillars, railings and other components of the Anping Bridge, and abstracting the modelling of ancillary structures such as Shuixin Pavilion, Stone Pagoda, Rain Pavilion and Listening to the Tide Building, and using them in the design of urban furniture such as walkway lamps, green guardrails, rubbish bins and landscape lamps, the modelling characteristics of the stone bridge are constantly highlighted. Absorb and reorganise the pattern of the riding tower and the decorative elements of the iron doors and windows, extract and translate the "three-stage" style for the features of the building façade of the riding tower, and continue to show the morphological elements in the design of urban furniture such as street lamps, shop signs, guide signs and seats in the old Republic of China business houses. Thirdly, we focus on the use of essential elements that integrate "morphological excavation" and "symbolic collage". Combine the stone ship, sail, mast, oar and Anping Bridge ship-shaped pier symbols, high street lamps, sculpture and landscape design while drawing on the wave symbols, incorporating flower boxes, parking racks and other urban furniture design. Designed with Nan'an disc flower pattern, loyalty logo, good man image and other modelling elements, the lion show, green lions, embroidered balls, lion flags and other modelling elements collage reconstruction, the formation of cultural walls, vignettes, car stops, and other furniture in a harmonious and unified appearance style.

4.3 Scene Level: Camp Characteristics, Rhythm, and Promote Harmony

Based on the sequential urban furniture layout and monolithic design, in order to realise the coordination and cooperation of various urban furniture in cultural expression, and to shape the unique cultural scene of Southern Fujian, corresponding to the proposed strategy of various urban furniture combination design, it is a further design focus to be considered. For the lively cultural elements application scene, on the one hand, with the help of the layout of different volumes of thematic urban furniture such as the library and the stagecoach station, we can form a distinctive and hierarchical cultural space to tell the story of the Shuitou Ancient Stagecoach Road, so that the public can have a gradual understanding of the history and culture of Southern Fujian region in the slow walk.

On the other hand, through the use of red colours such as lantern red, paper-cut red and ancient house red in the design of urban furniture, the "regional charm" scene is shaped to further enhance the recognition and interest of the space 2. For the desired cultural elements application scenario, not only encouraging the multi-functional combination of various urban furniture to make intensive use of the commercial street and alleyway space, but also promoting the formation of a unified commercial culture of the old street and realising the "overseas Chinese business experience" with the help of the regular expression of different materials and corresponding colours such as red bricks, concrete and iron, etc. For the necessary cultural elements application scene, the design uses the unified consideration and systematic configuration of street lamps, landscape lamps, ground lamps and flower box lamps to form a harmonious landscape with the theme of the ocean, and at the same time, through the strategy of highlighting the large scale and enriching the small and medium scale, the design enhances the harmony of the combination of urban furniture, accentuates the atmosphere of bridges and recreates the grand scene of the construction of bridges, thus further highlighting the "ocean sentiment".

5. Conclusion

Urban furniture design is both an important content of urban public cultural space design and the main means to meet the public's needs for cultural life. The previous paper outlined the composition system of cultural elements in southern Fujian, formed a public demand system of cultural elements in southern Fujian with the significance of public participation in design, translation of cultural elements, and cross-fertilisation of disciplines and research, and carried out design practice of urban furniture. In the future, from the perspective of horizontal extension, the comparison of subjective perception of cultural elements in different types of people and the discussion of reasons need to be further deepened and quantified. From the vertical extension, the formation of a detailed sample library of colours, functions, forms and materials requires deeper excavation and refinement of the connotations of cultural elements, and more effective guidance for monolithic design. At the same time, the guideline-based translation of urban furniture design results is increased to help achieve effective control of urban public cultural space design. In addition, AIGC tools can be used to transform the user demand weights of urban furniture into design items and AIGC keywords, so as to ensure that the generated design schemes can better meet the core needs of users [22].

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Biography

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