Cultural Design Methodology from the Perspective of Cultural Philosophy: A Case of Ningbo[1]

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Abstract: Cultural design integrates cultural content into the design process. It is an important means to realize the innovation of traditional culture in inheritance. Cultural design behavior is subtly influenced by cultural philosophy. Specifically, cultural environment analysis, cultural semantic association and cultural imagery extraction, from the perspective of cultural philosophy, are helpful in realizing the explicitness of designers' implicit knowledge in the process of encoding and decoding cultural genes. We select Ningbo as a sample to deeply mine the regional cultural genes, explore the generation mode of cultural design, and further propose a framework for building a cultural design knowledge service system. So as to provide methodological guidance for regional cultural design practice to build sustainable cultural design capabilities.

Keywords: Cultural philosophy. Cultural design. Cultural gene. Knowledge service system.

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Introduction

Culture is the source of beauty, and regional culture is the peolple's common memory in a specific area, which directly affects people's aesthetic tendencies, ways of thinking and behavioral habits. Regional culture is also an important carrier to enhance residents' cultural confidence and happiness (PAN, 2012, p.2). Cultural design transforms cultural resources into design works, allowing regional culture to reach thousands of households with products as a medium. It can awaken the residents' emotional experience and inject cultural characteristics into products to form brand competitiveness (WANG, 2019, p. 2). Cultural design behavior is subtly influenced by cultural philosophy. Cultural philosophy is a human-oriented worldview, methodology and way of thinking, covering the living habits, production methods, values and beliefs, behavioral norms, ethics, and morals that people have accumulated over the years (HAN; HU, 2002, p. 6). By comparing the Eastern and Western designers' design process, it is found that the Doctrine of the Mean in Confucian philosophy deeply affects the Eastern designers' aesthetic preferences (CHAI; SHEN; BAO; SUN, 2018, p. 245). Cultural design needs to go through the process from the input of cultural elements to the output of cultural works, and there are still many links that are difficult to deconstruct. However, by comparing the forms of design elements, it is found that abstract words limit the designer's imagination less than figurative pictures. The former shows more superior design potential (LUO; DONG, 2017, p. 25). When implementing cultural design, designers frequently run into issues, including inadequate input of design information, difficulties understanding regional cultural philosophies and inadequate precipitation of design knowledge, which leads to the production of simplistic and repetitive design works. An essential carrier to help designers carry out cultural design is a system of cultural design knowledge services that incorporates the encoding and decoding of cultural genes, the generation and representation of design knowledge, and the display and diffusion of cultural commodities. In order to offer methodological direction for local cultural design, this study uses Ningbo as an example and extracts the Ningbo cultural genes, explains the processes and paths of Ningbo cultural design and suggests the framework of the Ningbo Cultural Design Knowledge Service System.

1 The cultural genes of Ningbo

The concept of "cultural gene" comes from the book "The Selfish Gene" (RICHARD, 1976, p.10). Many scholars have defined cultural gene in the academic context. Generally speaking, the basic understanding of cultural genes comes from the cultural spirit in traditional philosophy. Cultural genes are cultural philosophies that have been passed down and continued from generation to generation in human groups. They are the accumulation of spiritual creations in the group members' production and life in the past dynasties (CAI, 2022, p.33). Cultural genes are abstract. They are the underlying psychological structure and way of thinking of regional cultural identity. How to transform abstract cultural genes into concrete cultural carriers is a problem that cultural designers need to consider, which needs to establish a mapping between cultural spirit and cultural symbols. As far as Ningbo is concerned, it is first necessary to decode the cultural genes of this city, that is to restore the height of the traditional culture of Ningo on the basis of analyzing the cultural environment of this city and to construct the cognitive picture of the people's independent consciousness subject from Ningbo. Specifically, it is to carry out semantic analysis on the most representative cultural elements of Ningbo, find semantic associations and refine cultural imagery.

1.1 Analysis of Ningbo Cultural Environment

The cultural environment is the sum of cultural resources, natural resources and behavioral resources of a region. Ningbo is an ancient city with many historical and cultural relics and intangible cultural heritage. Ningbo is the cultural hometown of the Maritime Silk Road. The Grand Canal and the Maritime Silk Road meet here. The Jingtoushan site and Hemudu site lead us into the depths of history, to trace the origin of prehistoric culture along the southeastern coast of China and to sort out the cultural context of Ningbo. The city is also the fountain of Song-style culture. Cihu, Yuehu and Dongqian Lake still retain many cultural imprints from the Song Dynasty, especially the Southern Song Dynasty (ZHU; RONG, 2022, p. 2). Around these three lakes, most of the Song Dynasty of Ningbo remains The celebrity culture, the scholar culture and the celadon culture are concentrated. The cultural history of Ningbo is a history of foreign exchanges, from port changes, navigation technology and foreign trade to Buddhist sects (CHEN, 2016, p. 4). It also contains architecture, calligraphy, painting, sculpture and folk customs. This

history leaves behind cultural treasures such as the bronze battle-ax with Yu people's boat race emblazonry from the Warring States Period, Yue kiln celadon, Southern Song Dynasty stone carvings, etc. These historical relics provide detailed basic materials for analyzing the cultural environment of Ningbo. The open and inclusive spirit of the Maritime Silk Road culture inspires designers to explore the possibility of continuously combining culture and design. Elements of the Maritime Silk Road culture have also become an important part of regional cultural design. The architectural style, carving texture of the Qingan Hall, the legend and landscape of Tiantong Temple and the living fossil of the Maritime Silk Road have been repeatedly used in designers' works.

In terms of natural resources, the Ningbo area has all kinds of mountains, seas, lakes, forests and fields. There is a lake in the middle, three rivers and six ponds, and the sea to the east. Water has become the most important natural resource of the city. Siming Mountain and Tiantai Mountain surround the southwest. The city with mountains and water forms a beautiful and dynamic picture of Ningbo. In ancient times, Ningbo was often the first stop for Japanese envoys to China. During the Ming Dynasty, Japanese painter Sesshū's works "NingboMap", "Zhenhaikou Map" and "Yuwang Mountain Map", etc., have become precious materials for people today to study the changes of Ningbo city (LI, 2011, p. 40). The designers' intervention will also promote combining these natural resources and design and produce more and better cultural design works.

In addition, during the thousands of years of historical development, the Ningbo people have created their own unique and profound folk traditional culture. The superb traditional handicraft skills, such as wood carving with red and golden lacquer, bone wood inlay, and gold and silver embroidery, have also made Ningbo craftsmen famous at home and abroad (LI, 2010, p. 5). They have a distinct eating culture and are well recognized for their stewed grilled, and steaming seafood. All of these distinctive cultural characteristics reflect the life, feelings and ideals of the Ningbo people and represent their knowledge across all dynasties. It still has an impact on people's opinions, values and emotions. Local designers will have access to a continual stream of design inspiration thanks to these behavioural tools.

In summary, the cultural environment in the Ningbo area is mainly based on the Maritime Silk Road culture, covering Song-style aesthetics, Eastern Zhejiang School, Buddhist culture, sculpture art, and so on. The

unity of knowledge and action, seeking truth from facts, practical application, openness and inclusiveness, has become the cultural philosophy of Ningbo people. Cultural resources have a long history. Dominated by water culture, Ningbo is a three-dimensional city covering multi-dimensional landscapes such as mountains, rivers, cities, forests and fields (HU; YAO, 2002, p. 4). Behavioral resources are the behaviors and lifestyles created by the people living there. Behavioral resources such as craftsman culture, food culture and marriage culture in the Ningbo area are unique. The cultural environment is the root, and the cultural philosophy is the soul, which constitutes the common memory or lifestyle of the old and new Ningbo people. It contains the charming urban temperament of Ningbo. Cultural competitiveness is the core of urban competitiveness. Culture needs to be innovated in inheritance. It lays the foundation for cultural design by sorting out the local cultural environment.

1.2 Refinement of Ningbo Cultural Imagery

From the perspective of cultural philosophy, a symbol is a conventional object designation created by people as the subject and a tool for human cultural practice (WAN, 2020, p. 4). Symbols are the carriers of cultural imagery. Regional cultural imagery is people's direct association with regional cultural characteristics and reflects people's emotional needs. It includes people, times, places, things and objects that can represent the personality and tradition of a certain region, as well as reflect the regional culture and quality. The combination of these factors constitutes designers' and users' unique identifying elements for regional cultural imagery (ZHU, 2009, p. 3). Not only cultural and creative products but also modern industrial or information products carry and embody the cultural imagery of a specific region. For example, Scandinavia has a human touch design style, emphasizing respect for tradition and restraint in form and decoration. The pure and vivid beauty of Wabi-sabi in Japanese aesthetics, which is deeply hidden in Japanese and can be understood and inexpressible, is the most distinctive foundation of Japanese cultural philosophy (TSAKNAKI; FERNAEUS, 2016, p. 5970).

In a popular sense, the luxury of American products, the sophistication of Japanese products and the rigor of German products, perceived by ordinary people, embody specific cultural philosophies in products. Shenzhen also has the imagery of innovation and technology. There are also the birthplaces of

great businesses like Huawei. A significant manufacturing hub on the east coast of China is Ningbo. Integrating regional cultural philosophy into Ningbo products through design has become a challenging topic for designers and even business managers, as traditional manufacturing is being replaced by an intelligent economy. Designing cultural interventions is one of the crucial methods. The fusion of Ningbo culture and design will provide a window through which the world may comprehend Ningbo culture through goods and services, increase the value of those goods and boost the competitiveness of Ningbo in the urban market. Residents will also be integrated into the regional cultural construction and communication system, through new media communication technology and service design methodologies, to create a sustainable cultural environment.

Based on the previous analysis of the Ningbo cultural environment, we carry out a semantic analysis of Ningbo cultural resources. We search for semantic association, dig deeply into Ningbo cultural connotation and refine Ningbo cultural imagery so that the invisible cultural philosophy can be presented with symbols as a carrier (JIN; PAN; LV, 2017, p. 7). The openness and inclusiveness of the Maritime Silk Road culture, the practical application of the East Zhejiang School, the elegance of Song-style aesthetics, the unity of knowledge and the action of Yangming Mind, the craftsmanship of the intangible cultural heritage of Ningbo, and the all-encompassing nature of the musems of Ningbo constitute the Ningbo vision of cultural philosophy.

Figure 1-The Bronze Battle-axe with Yu People's Boat race Emblazonry

TU, 2015, p. 92.

It is vital to hone the historical attributes, ethnic attributes, emotional attributes, metaphor attributes and allusions attributes of certain cultural resources. History, area and nationality characteristics are the fundamental characteristics of cultural aspects, such as historical age, region and ethnicity. Information that can affect emotions, including both good and bad feelings, such as joy, loyalty, nobility, purity, bravery, and fear, is known as an emotional trait. We can find many festive elements in Ten Miles of Red Dowry and the spirit of bravery and hard work in the bronze battle-axe with Yu people's boat race emblazonry, as shown in Figure 1. Metaphorical attributes are perception, experience and imagination under each other's hints with understanding (ZHAO, 2015, p. 2). There is a lot of metaphors in Ningbo-style furniture. Elements such as lion playing ball pattern, crane deer pattern, and dragon and phoenix pattern all have strong symbolic meanings. Allusions are historical figures, laws, regulations, stories or legends (CHEN; XU, 2021, p.133), such as Guanyin, Arhat and Amitabha, have become the themes of intangible cultural heritage of Ningbo, such as wood carving with red and golden lacquer, bone wood inlay, gold and silver embroidery. The design method is to deform and reconstruct cultural elements, including citation, contrast, exaggeration, clustering, dislocation, collaboration and artistic conception. Application scenarios mainly include home products, architecture, clothing, window grilles, flowers, fireworks, and so on.

The Ningbo Museum has a bronze battle-axe from the Warring States Period with Yu people's boat race pattern. The decorations on it record the scenes of people's dragon boat races more than 2,000 years ago. The "Yu People" reflects the worship of the Baiyue people's "bird god". "Boat race" is the earliest dragon boat pattern in Ningbo (CHAI, 2015, p. 2). In the pattern, four people with feather crests sitting on their heads are rowing hard, and the feather crests on their heads are also fluttering in the wind. The whole piece of bronze battle-ax reflects the Ningbo ancestors' enterprising spirit, who leaped and leaped. This image belongs to the maritime Silk Road culture. The four Yu People sit in a straight line and are decorated with two opposing dragon patterns on the upper part. This straight line represents the ship with the dragon as its totem. It can be seen that more than 2,000 years ago, ships have become an important means of transportation. It reflects the origin time of the Maritime Silk Road culture in Ningbo. Shape, pattern, spirit, and velocity are all sources of design inspiration for artists.

For cultural design, cultural gene decoding is a fundamental work. At present, the decoding of cultural genes when most designers carry out cultural design mainly comes from professional instinct, and it is difficult to carry out systematic research. The design knowledge of such cultural designers is mostly empirical knowledge, which is difficult to describe and pass on. Cultural environment analysis, cultural imagery extraction, and cultural symbol mapping together constitute the three levels of cultural gene decoding. On-site research and oral analysis experiments create conditions for the decoding of cultural genes, and are also design methods that need to be used in the fuzzy early stage of cultural design.

2 THE GENERATION MODE OF NINGBO CULTURAL DESIGN

Compared with the research work in the fuzzy early stage of cultural design, the middle stage of cultural design is more creative, including concept idea, program selection and design expression. Different designers have different understandings of cultural genes, different design carriers they are looking for and different design methods used. Based on collecting, classifying, deconstructing and analyzing traditional cultural elements, how to reproduce tradition, apply tradition or perceive tradition in modern products or services is the designers' focus (DENG, 2021, p. 6). The reproduction of tradition is to transplant traditional graphics into modern design. The application of tradition requires the processing of traditional graphics, while the perception of tradition only draws on the cultural imagery of traditional graphics without seeing the shadow of the original graphics.

In terms of Ningbo cultural design, many designers have participated in the process of Ningbo cultural design through various channels. Various design techniques were used in transforming Ningbo cultural semantics into product semantics, and many different perspectives and ways of thinking were seen. Although design knowledge is embedded in the invisible design process, there are three main ways for designers to carry out cultural design through the comparative analysis of many Ningbo cultural design works. The application of traditional culture on modern artifacts to inherit traditional culture, using information design means transforming traditional culture and social innovation oriented to regional culture.

First, the application of traditional culture on modern artifacts is to inherit traditional culture, mainly reflected in the innovative application

of traditional cultural elements and regional cultural imagery on modern products. In Figure 2, the themed tableware combination design of "Hundred Ships: Feast" is to extract design elements from the scene of hundreds of sailing fleets competing for flow to create this group of ship-shaped tableware combinations (LI; MAO, 2016, p.2). Through this procedure, the cultural spirit of the maritime Silk Road is incorporated into contemporary times among the artifacts. Both Zheng He's expedition to the Indian Ocean in the south and Jianzhen's eastward crossing of Japan passed via Ningbo. The eastern departure port for the Maritime Silk Road is located at Ningbo, which is also the estuary at the southern end Grand Canal of China. Most of the cultural design works for Ningbo belong to the culture of Maritime Silk Road Culture. Still, some works have more obvious cultural characteristics, while others are not obvious enough. The reproduction of tradition, application of tradition and perception of tradition gradually move from appearance to spiritual resemblance. It is also the process of gradually sublimating the design from the figurative to the abstract. The more abstract the design, the wider the application range. But the design difficulty is also greatly improved. This work does not directly adopt the cultural elements of Ningbo. But through the perception of traditional design methods, the tableware is associated with the cultural imagery of Ningbo, so that people have a psychological resonance. Excellent cultural design works must have strong cultural attributes and resonate with the audience, not just simply repeating graphics or patterns.

**Figure 2** - "Hundred Ships: Feast"

LI; MAO, 2016, p. 2.

The second path is to use information design methods to transform traditional culture so that traditional culture can be better spread and used. How, for instance, can the paper-cut culture be perpetuated in the age of knowledge networks and possibly made more popular? Combining paper-

cut culture with an intelligent application is one approach that might work. Modern manufacturing equipment is used to cut paper-cut shapes, which may be altered and customized. The paper-cut cultural aspects are dismantled and vectorized as much as feasible through element deconstruction and semantic analysis, allowing for the realization of novel innovation employing paper-cut material resources. To make distinctive paper-cut artwork of the original, this one is rebuilt. Incorporating cutting-edge components of contemporary technology, this application scenario can be employed in the classrooms of elementary and high schools. In Figure 3, "A Group of Expression Packs of Primitive Beasts", originated from the collection of Ningbo Museum, displayed through the image of primitive animals, and applied for use through the WeChat expression open platform to facilitate the dissemination of traditional culture (MAO, 2018, p. 2). Information technology has created favorable conditions for the design and dissemination of traditional culture. This group of emoji packs gives the cold collections a vivid image, which shortens the distance between cultural relics and consumers, and has a strong communication attribute.

Figure 3 -"A Group of Expression Packs of Primitive Beasts"
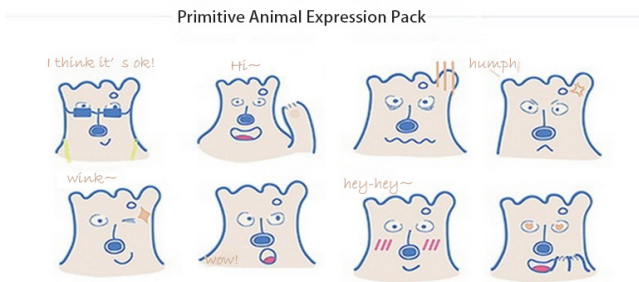
MAO, 2018, p. 2.

With the development of A.R. and V.R. technologies, integrating digital cultural content into industrial products has become an emerging trend in cultural design. Im Figure 4, "Yangming Pen" is a series of ball-point pens designed, based on the imagery of the three deeds to immortality of Ningbo sage Wang Yangming: to a paragon of virtue, achievement or words. Users can scan this series of products with their mobile phones, and the digital content related to Wang Yangming can be presented on the mobile phone interface.

Wang Yangming's three-deed imagery inspires future generations to practice the Ningbo spirit of the unity of knowledge and action through the carrier of industrial products, while digital cultural content enhances the accessibility of Yangming culture, and the combination of virtual and real product service system makes the cultural experience more immersive.

Figure 4 - "Yangming Pen"

Designed by author, Shen Hongjie, and Jiang Yiwei.

The third option is to leverage social innovation to include local community members and artisans as partners in the design process. There are, for instance, organized community research and design initiatives for regional intangible cultural heritage. New works in the forms of digital video documentaries on intangible cultural artefacts, original ecological music compositions, tourism planning, landscape design, cultural design and kid-made artwork are constantly being produced. This initiative strengthens the good interaction between designers, the inheritors of intangible cultural heritage in residents, protects and promotes the sustainable development of local natural, social and cultural resources (JI; YANG; ZHAO, 2009, p. 5). Social innovation, oriented to regional culture, needs to mobilize the stakeholders' enthusiasm to participate. This type of design requires designers to design for the real world, which has a long cycle and is difficult to implement. But also because this type of design contains the designer's deep integration, the effect is the best, and it will become the main form of cultural design in the future. Cong Zhiqiang took root in Gejia Village and Chengyang Village in Ningbo, opened social practice courses in the fields and carried out artistic revitalization activities in rural areas. Through design empowerment,

we can explore the characteristics and advantages of the village, mobilize the the majority of villagers' enthusiasm, let more villagers join the artistic transformation of the village and promote deeper changes in the village.

The objects of Ningbo cultural design are mainly the intangible cultural heritage, museums and cultural tourism industry in the Ningbo area. The industrial economy of Ningbo is the main position for integrating culture and manufacturing. In recent years, Geely Automobile in Ningbo has integrated Song-style aesthetics into its automobile design and cooperated with the dance drama "Only Green", which was born out of "A Thousand Miles of Rivers and Mountains" to explore the integration of "automotive technology and traditional culture" (LIN; YANG; JULIA, 2020, p.82). In addition, direct-to-consumer Ningbo local enterprises, such as Olin, Aux and Peacebird, gradually inject cultural attributes into their products to enhance their brands.
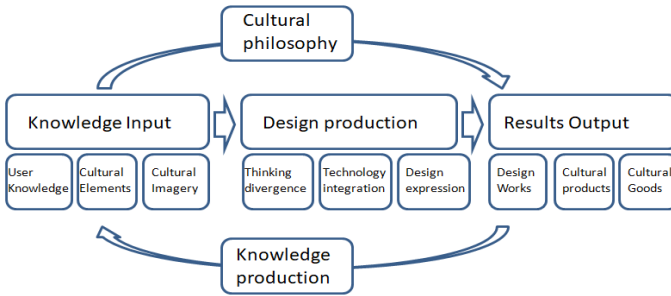
3 Ningbo cultural design knowledge service system

More and more artists have created cultural design pieces in recent years using Ningbo area culture as the subject. However, designers from outside of the sizable area still know very little about the regional culture of Ningbo. Most design projects are just based on vague impressions. There has not been a new development. The knowledge of regional cultural design, on the other hand, is implicit in the designers' thoughts and is a rather independent knowledge system. Cultural design scholars struggle with how to make their understanding of regional cultural design evident. Design is flexible. It is choice, action and result. The design process needs knowledge support, and the design behavior also generates a lot of knowledge (LIU; SUN; LU, 2010, p. 7). The acquisition, expression, storage and utilization of knowledge nourish design and production in the era of artificial intelligence. Cultural environment analysis, cultural imagery refinement and cultural symbol mapping are design knowledge generated through the forward design process.

In contrast, cultural design practice reverses the knowledge generated in the design process from the results. This knowledge, combined with the user's knowledge, such as the needs, behaviors, motivations, experiences, emotions and the target users' target, constitutes a cultural design knowledge system, as shown in Figure 5. To inspire more designers to participate in the

s regional cultural design of Ningbo, it is also necessary to build a relatively complete regional cultural design knowledge service system.

Figure 5 - The cultural design knowledge service system

Drawn by author.

Ningbo Cultural Design Knowledge Service System covers knowledge input, design production and results output under the guidance of cultural philosophy. It is a co-creation community composed of many stakeholders, including the knowledge expression of the designers' implicit experience in the early design practice process and the later stage. The data precipitated by the stakeholders' continuous interaction forms a dynamic big data system to assist cultural design and production. The design process, in reality, comes from the integrated expression of abstract content such as the designer's thinking, experience, and skills. With the rise of artificial intelligence technologies such as big data, cloud computing and machine learning, this black-box-like design process is gradually revealed. The generative design platform, based on intelligent algorithms for regional culture, gradually emerges (TANG; HUANG; YAO, 2019, p. 1595).

Ningbo Cultural Design Knowledge Service System mainly serves people who work creatively based on Ningbo culture, including all kinds of designers, inheritors of intangible cultural heritage, cultural researchers, business managers and even the people interested in Ningbo regional culture. All kinds of users can obtain dynamic, customized and intelligent knowledge services. In terms of technology, Ningbo Cultural Design Knowledge Service System can integrate big data technology for trend forecasting and design decision-

making, and experience management technology with multi-stakeholder (VERONICA, 2018, p.20), 3D scanning technology for data collection, generative design, 3D printing technology for personalized customization and virtual reality technology for diversified display (JEFFERSON; SABAREESH; SIDHARTH, 2021, p.1319). It requires exploring the data intelligence in the knowledge service model for the public.

A large number of cultural resources are summarized and refined through semantic analysis and connotation mining of cultural resources through semantic models. We can explore the methods of cultural aided design systems for innovative design and develop various forms of cultural aided design systems provided to design companies, designers, enterprises and institutions. They can carry out the creative design of cultural products and other work. Corresponding explorations have been carried out in the field of design research. Colors, patterns and three-dimensional models, in traditional culture, can be used for a generative design using information technology, which has also spawned many new service models. For example, the secondary development of three-dimensional models of cultural relics can derive customized designs for users to adjust parameters. Relying on three-dimensional printing technology, users can design their unique creative gifts (LI; WANG; ZHANG, 2015, p. 4). In order to create digital material based on real-world things, they can also make use of technologies like augmented reality. A museum creative product sales centre may be the appropriate application situation, as it can boost the visitor's engagement with museums while also producing financial benefits. Technology, design and business knowledge must be integrated in order to create the application tools for the Ningbo Cultural Design Knowledge Service System. It can learn from the idea of an open platform, provide developers with interfaces and open some data to realize the road to the knowledge integration and integrated innovation of the Ningbo Cultural Design Knowledge Service System. Open innovation is an innovation method that is more adaptable to the Internet era. Compared with closed innovation, it can attract more stakeholders and allow people to do things more widely. Therefore, the Ningbo Cultural Design Knowledge Service System needs to consider comprehensively the service touch points that may carry out open innovation and gradually design the user's experience of each service touch point. When the opportunity is ripe, these touch points should be opened to allow more people to the traditional culture innovation and dissemination of Ningbo.

Ningbo Cultural Design Knowledge Service System is the underlying infrastructure of regional cultural design, and also a distribution center for gathering stakeholders of cultural design. It is possible to have a cross-time and space platform to exchange and learn about regional cultures. And it will help more designers integrate deeply into the regional culture and create more and better design works. This will establish a small, local, open and linked designer community, which promotes the sustainable development of the regional culture of Ningbo, in inheritance and innovation and further spreads regional culture of Ningbo (EZIO, 2016, p. 215). It will enhance the cultural competence of the city.

Conclusions

To sum up, cultural design helps traditional culture continue to innovate in inheritance, allowing local residents to gain cultural identity through cultural products. But the contingency of cultural design behavior itself makes excellent cultural design works difficult to capture. Sustainable design competitiveness requires the dismantling of the cultural design process. In the early stage of cultural design vagueness, the decoding of cultural genes based on cultural environment analysis, cultural image extraction and cultural symbol mapping is carried out. In the middle stage of cultural design, on the basis of the understanding and processing of local cultural philosophy, imaginative cultural products are created. And cultural design results are displayed and disseminated in the later stage of cultural design. The design flow itself is also the flow of methods and knowledge. The knowledge management of cultural design is to sort out the design methods in the process of cultural design, express and store the design knowledge in the process of cultural design, and aggregate the stakeholders of cultural design. Therefore, this paper proposes a framework of cultural design knowledge service system, based on regional cultural philosophy, explores the underlying logic and future possibilities of the knowledge service system, and provides methodological guidance for regional cultural design to build sustainable design capabilities. In the future, big data technology can be actively used to support the regional cultural designers' development and incubation.

In the form of online mass innovation, we will deeply explore the cultural value of each region, enrich the core and extension of regional culture, and form a normalized new product development and brand communication.

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On the other hand, it is possible to actively promote the integrated development of culture melt-in industry and establish demonstration projects for the integrated development of culture melt-in industry, which enhances the local cultural awareness and cultural confidence of enterprises and the people's ones. It also allows products with regional cultural genes to be more popular. Extensive display and dissemination enhance the cultural attraction of the local area.

ZUYAO, W.; XIN, J.; SONG, Q. Metodologia de desenho cultural a partir da perspectiva da filosofia cultural: um caso de ningbo. **Trans/Form/Ação**, Marília, v. 46, p. 239-256, 2023. Edição Especial.

Résumé: O *design* cultural integra o conteúdo cultural no processo de *design*. É um meio importante para perceber a inovação da cultura tradicional na herança. O comportamento do *design* cultural é sutilmente influenciado pela filosofia cultural. Especificamente, a análise do ambiente cultural, a associação semântica cultural e a extração de imagens culturais, na perspectiva da filosofia cultural, ajudam a perceber a explicitação do conhecimento implícito no processo de codificação e decodificação de genes culturais. Selecionamos Ningbo como uma amostra, aprofundamos os genes culturais regionais, exploramos o modelo de geração de *design* cultural e ainda propusemos a estrutura para a construção de um sistema de serviços de conhecimento de *design* cultural para fornecer orientação metodológica, para a prática de *design* cultural regional, a fim de construir capacidades de *design* cultural sustentável.

Palavras-chave: Filosofia cultural. *Design* cultural. Genes de *design*. Sistema de serviço de conhecimento.

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