

Research on the Digital Application Based on the Perspective of Guangfu Architectural Decoration Elements

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Abstract

This Article aims to study 1) the Use of the Internet, mobile Internet, and digital media technologies; we extracted the architectural decoration elements of the historical Guangzhou Prefecture area. We provided innovative design strategies for disseminating and transmitting traditional culture, recognizing, revitalizing, and inheriting new media work through digital transformation. 2) Through the study, we will explore the specific classification, shape, and vital elements in the presentation content of decorative architectural elements in the historical Guangzhou Prefecture area and analyze the problems they need to face in the process of new media application and transformation. 3) Establish digital transformation, production, and application methods that meet Internet and digital media design and communication norms. The sample selected for this study is related to the decorative elements of historical Guangzhou Prefecture area buildings. The tools used by the institute to collect data are the Tencent questionnaire system and questionnaire star system, which analyze data through descriptive statistics and content. The research results were found as follows:

1. Form the transformation method of historical Guangzhou Prefecture area decorative architectural elements in the digital application of new media works.
2. Form innovative ideas to "revitalize" traditional culture into social and commercial value.
3. Standardize the management of traditional culture's communication methods and contents.
4. The digital transformation of the historical Guangzhou Prefecture area decorative architectural elements are used as an entry point to explore the theory of fragmentation, redesign, and overall knowledge reconstruction of traditional cultural elements and their application in digital media works.

Keywords: Architectural Decorative Elements; Digital Transformation; Revitalization; Elements; New media works

Introduction

Guangzhou Prefecture (from now on referred to as Guangfu), a historical administrative division, was established in the Ming Dynasty and ended in the early years of the Republic of China, and was one of the ten major state capitals shown in Guangdong Province during the Ming and Qing Dynasties, with an administrative area similar to the scope of the Guangdong-Hong Kong-Macao Greater Bay Area today.

By studying and exploring the problems encountered in the transformation of Guangfu architectural decorative elements in new media applications, the main points of an innovative design approach for the digital revitalization of Guangfu architectural decorative elements are constructed in four aspects: a theoretical study of cultural factors, focused application, transformation model, and empirical verification. It provides a new design strategy reference for recognizing, revitalizing, and inheriting traditional cultural elements formed by digital media technology.

The research area is the application of digital media in inheriting traditional culture. The research question is how to solve the ways and methods of digital translation and activation of Guangfu architectural decorative elements in conventional cultural inheritance and how to integrate Guangfu architectural decorative elements with the field of digital media art design in the context of the development challenges of the new era in the Internet era, which is an important research issue for design researchers to face. This study focuses on middle-aged and young users who are the main force of the consumer market in the age group of 18-45, have a specific education level and Internet application ability, and actively accept the Internet communication form.

The purpose of this thesis research is to open the path of transformation for the digital revitalization of traditional culture by constructing the transformation model of Guangfu architectural decoration elements in the process of new media digitization. The conclusion of the study is to provide a unique design strategy model for the operation of cognition, revitalization, and inheritance formed by digital media designers for traditional culture, with digital media technology as the primary support, and to provide a feasible solution for the commercialization of traditional culture through practice, and to produce a positive and far-reaching impact in social communication.

Research Objectives

- 1) Extracting the decorative elements of Guangfu architecture and promoting the awareness, revitalization, and transmission of traditional culture among contemporary youth through digital transformation provides an innovative design strategy.
- 2) To explore the classification and critical points of Guangfu architectural decoration elements through research and analysis to find out the problems faced in the transformation process by new media applications.
- 3) To construct a method for traditional culture to conform to digital transformation and application specifications.

Literature Review

Research in the integration of traditional cultural elements and digital works

Scholars have conducted more research on integrating traditional cultural elements and digital works, and a relatively complete theoretical research system has formed academically. Sociologist Ray Oldenburg has proposed the need to penetrate cultural elements within virtual spaces as a link to connect up different virtual areas and an entry point for traditional culture to adapt to modern society and be used effectively. In addition, the Internet presentation of different cultural backgrounds provides the necessary conditions for creating a viable "virtual" third space in the world (Soukup, C. , 2006).

In terms of digitization of traditional culture, research shows that integrating conventional cultural elements with digital technology will substantially impact presentation and communication more than ordinary digital works

As for the support of culture for the influence of the content of digital media works, for example, Vanderhoef, John Robert of the University of California, in his published book "An Industry of Indies: The New Cultural Economy of Digital Game Production," proposes a combination of In his book An Industry of Indies: The New Cultural Economy of Digital Game Production, Vanderhoef, John Robert of the University of California proposes a methodology that combines interdisciplinary elements such as cultural studies and discourse analysis to analyze the influence of culture in indie game development in the global digital game industry, and the idea that the game industry is studying indie games not only as an art form but also as cultural products. (Vanderhoef II & J.R., 2016).

Digital activation of traditional culture and digital content representation

There are more studies on digital revitalization and digital content representation of traditional culture by relevant scholars. In his research paper "Definition of Cultural Heritage," scholar J. Jokilehto suggests that the heritage and continuity of culture need to analyze with two three-dimensional variables: time and space dimensions, to have a rigorous definition of the term "cultural heritage". He believes that cultural heritage does not develop linearly; it should be influenced by the level of social productivity and take many forms. (Jokilehto, J., 2005).

Based on the support of cultural elements, it can effectively break through the traditional graphic design language and integrate with the dynamic visual language of the film. On the other hand, aspects of digital dynamic image design, including the relationship, hierarchy, form, and composition between images, fonts, and cultural elements, and how to process digital animation movements to improve artistic expression and conceptual impact. (Krasner, J. , 2013).

Summary of the literature review to show that purveyors and audiences positively affirm the necessity of digitizing traditional culture in digital media. Still, there are no practical transformation methods for effective digital matching, combination with modern commercialized digital works, and dissemination.

Conceptual Framework

This study is based on exploring the problems that exist in the process of transformation of Guangfu architectural decorative elements in new media applications through research and constructing a conceptual research framework of innovative design methods for the digital transformation of Guangfu architectural decorative elements in four aspects: theoretical analysis, research entry point, transformation model, and application verification, as detailed in Figure 1 below.

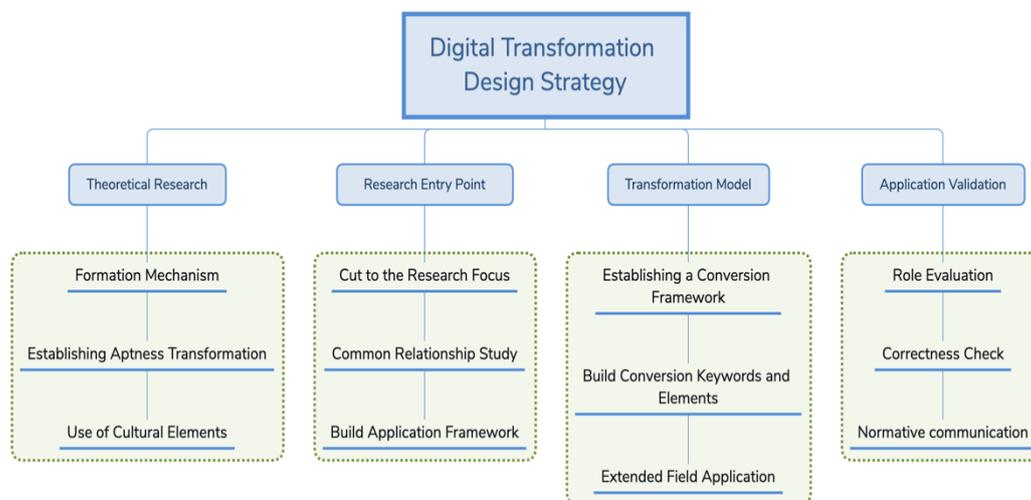


Fig.1 Schematic design strategy for digital revitalization of decorative elements of Guangfu architecture

People use their mobile terminals to capture multimedia content they care about anytime and anywhere and actively join the interaction to express their views (Chen J. , 2020). Digital media content on the Internet has changed the way people think and behave and, at the same time, marginalized aspects of traditional culture. The current status of the survival and development of local traditional culture is not optimistic due to the impact and influence of modern western solid culture. Fast-food and fallacious expressions by foreigners more often distort the traditional culture presented to the audience (LinDan & JiangFan, 2021), including the problems that exist.

Abandoning traditional cultural elements

The uniqueness and innovation of digital works compared with traditional media make the use of conventional cultural content difficult and disconnected (YeZhihao, 2021). Accustomed to a lifestyle that combines online virtual content with offline physical scenes (YanXueyang, 2020), traditional culture through books and earnest cultural performances is unlikely to attract their interest (ChenMinFang & LiJian, 2019).

Few compelling transformation application cases and digital elements adaptation methods

Because Guangfu's architectural decoration culture is regional, many traditional skills and vocabulary are frequently lost. They have been far away from modern life, and the living habits of contemporary society are also greatly disconnected and separated from Guangfu's architectural decoration culture (Mao & Wang, 2019). Many commercial works nowadays only superficially and directly add traditional cultural elements into the picture. The design lacks the adaptation and transformation design of components according to the characteristics of digital communication and resulting in inexplicable digital content and far-fetched and confusing visual expressions (ZhangXiao, XuJiaQi, & WangYiHui, 2022), which cannot withstand the audience's scrutiny and cannot make the audience feel a sense of immersion and empathy. Therefore, the transformation of new media digital form of cultural elements into heritage needs to retain the core elements as the premise, and the expression should carry out by innovative means (WuTian, 2022). However, there are few references to do this and No precedent reference.

The content of the knowledge involved is complicated and huge

If we do not take the time to organize, revitalize and redesign them but follow the attitude of fetishism and direct application without sorting out and analyzing (LiQiang, LuoTian, & WangJingjing, 2021), then the traditional cultural elements will not go far in digital inheritance., so also the key reason why it is difficult for the cultural aspects to generate more excellent value on digital media products in recent years (Qin & Yang, 2019).

Weak activation of the digital conversion process

In games and animation, the direct application of Guangfu architectural decoration elements in the works (WangDong, ZhangXiaokai, & SunYuanyuan, 2021), especially the direct application of physical objects and pictures of field scenes, is counterproductive and will give a sense of incestuous and deliberate retro (Zhang Yue, 2018). These are all completely deviated from the applicable rules and performance purposes of digital media technology, that is, static elements and materials that are not conducive to the construction of new media content dissemination form, lumped into digital products (Ye Cuicui, 2018), lacking the essence of traditional cultural content to refine sublimation, the digital activation process is inefficient and single.

Research Methodology

The research method of this paper is qualitative, involving field investigation, using images of Guangfu architecture as the analysis text, consisting of four parts: "theoretical research - research focus - transformation model - empirical verification." It includes 36 typical cases of decorative architectural elements, discussing their transformation methods and application scenarios. The research steps are as follows.

Theoretical Compendium.

The theoretical basis sorts out through literature review, and the revitalized transformation and application of Guangfu architectural decoration culture in the new media platform and digital technology is analyzed.

Generalization.

Taking today's communication methods and the expression forms of digital works as the entry point, we clarify the characteristics and connotations of effectively using the process of Guangfu architectural decoration elements in digital media through induction and organization.

Closed-loop construction.

Construct the design model of digital activation of Guangfu architectural decoration elements and the method of refining and analyzing the cultural factors and digital media design translation to form a more profound design strategy theory and build a closed loop to the research ideas.

Research Results

Objective 1. The results showed that the study explores the classification and critical points of the decorative elements of Guangfu architecture and analyzes them to discover the problems faced in the transformation process of new media applications.

Objective 2. The results showed that extracting elements of Guangfu architectural decoration in contemporary digital media works and promoting the awareness, revitalization, and transmission of traditional culture among modern youth through digital transformation provides an innovative design strategy.

Objective 3. The results showed a method for constructing a traditional culture that meets digital transformation and application specifications.

Formation and classification of Guangfu architectural decorative elements

The living environment and values of the Guangfu people's naturals reflect in the architectural space and decorative elements they live in today. According to each region's natural conditions and living environment, they create courtyard-style dwellings of different styles and scales. Styles. These architectural structures and decorative elements, which are in line with the physical characteristics of buildings and have very Lingnan characteristics, are widely used in modern architecture (Chen, Wang, & Liu, 2020). Digital According to the questionnaire data research, the top five most popular forms of traditional cultural expression are animation (82.5%), film and television works (75%), games (71.5%), print works (41%), and stage drama performances (28%); the audience participating in the research believes that the most crucial feature possessed by traditional cultural works should be interactivity (49.5%), followed by aesthetics (29%).activation of traditional culture and digital content representation (as in Table 1).The categories, distillation of elements, and transformation of the use of architectural decoration in Guangfu include (as in Table 2).

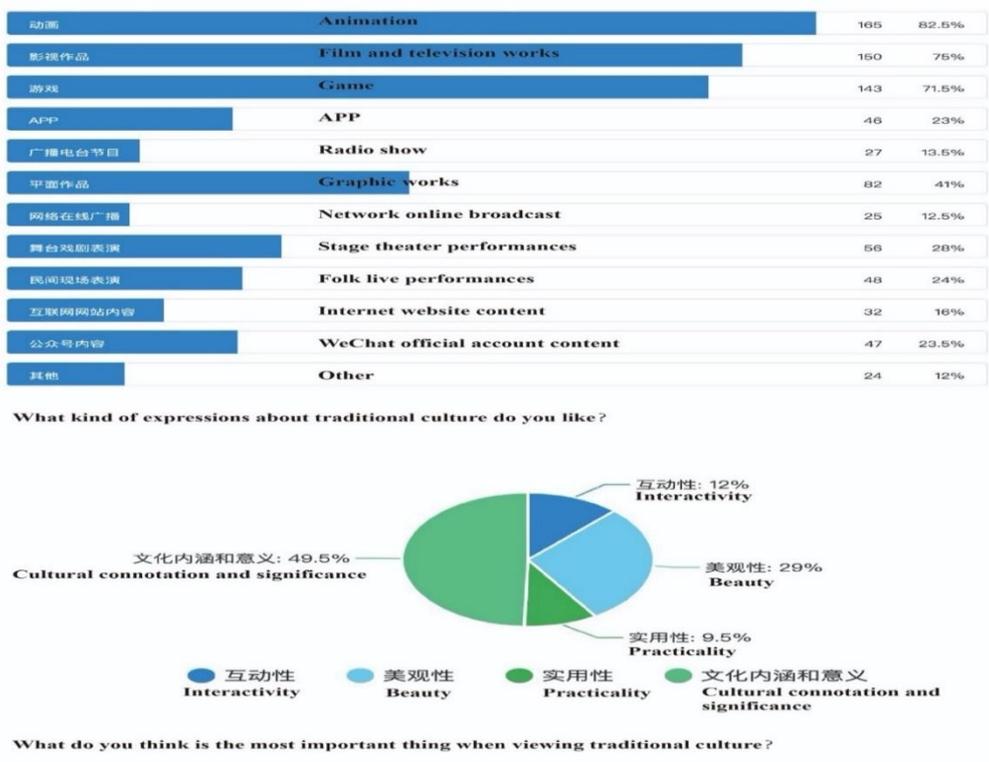


Table 1 Data on the ranking of the main types of media that young people are exposed to traditional culture

No.	Decorative classification	Element refinement	How the element is converted	Scenarios
Architectural form				
1	Taketsuya	Front, middle and rear plan layout, double opening and closing of the gate, Lingnan features "lying chestnut door", "gate gate"	Overall contour shape, inductive tones, and multi-body overlay applications	Animations and games adapt to the street scenes performed by the characters
2	Mingyu House	The Chinese character "Ming" character double-open layout, with courtyards, rockeries, flowers, plants, plants, and small ponds	Overall contour shape, inductive tones, and multi-body overlay applications	Animations and games adapt to the street scenes performed by the characters, mostly in the form of rich families' homes
3	Three two-gallery houses	On both sides are corridors, courtyards, flutters, gables and patterns	On both sides are corridors, courtyards, flutters, gables and patterns	Animations and games adapt to the street scenes performed by the characters
4	Large courtyard-style house	Commonly known as Guangzhou Xiguan "Xiguan Big House", "Ancient Big House", four halls, two bedrooms and one corridor, landscape garden, brick and stone foothills, wood carved sealed pads, corner doors, chestnuts and hardwood doors, wood and stone brick carvings, ceramic plastic plasters, partition screen doors, etched stained glass, Manchurian windows, glass leaking windows	Local refinement is combined with large-tone structured forms	Used in RPG games, scene-based animations and scenario-based Internet backgrounds, it is the residence of a wealthy family
5	Arcade	The corridor is contiguous, continuous and complete, the façade is unified, and the pluralistic coexistence is	Riding on the sidewalk, arcade groups, the overall contour shape, inductive tone and different types of forms are repeatedly used	The overall scene background of the game and animation that expresses a strong local style
6	Wuyi area Luju	One is the form of a building, called "Lu"; octagonal or convex windows, standing face weighing more, there are Chinese traditional, Western classical, there are also a combination of Chinese and Foreign	The overall contour shape, inductive hue and different types of morphology are used independently	The overall scene background of the game and animation that expresses a strong local style
7	Watchtowers	Roof in seven forms: 1 Chinese traditional roof type, 2 Imitation italian dome type, 3 Imitation of European medieval churches, 4 Imitation of the Dome of islamic monasteries in Central Asia, 5 Imitation of the British walled fortress, 6 Imitation roman gallery style, 7 Compromise, 8 Modern Chinese style. The shape is divided into three parts: the building, the platform and the roof.	The use of attribution tones and different types of forms is used independently	The overall scene background of the game and animation
8	Residences in Hong Kong and Macao	The façade decoration (doors and windows, entrances, balconies, etc.) mostly adopts Western-style construction techniques and decorative expressions, and the architectural style has a strong southern European style	The overall contour shape, inductive hue and different kinds of morphological superposition are used	The overall scene background of the game and animation that expresses a strong local style
Architectural decoration				
1	woodcarving	Natural landscapes, feathered flowers, animals and insects and fish and various patterns are combined, and the themes are mostly selected from local regional landscapes and folk tales and legendary materials, and the materials are camphor, teak, acid branches and rosewood	The overall contour shape, inductive hue and different types of forms are used independently, represented by the Chen Clan Ancestral Hall in Guangzhou.	Application games and animations are related to temples, ancestral halls, houses, gardens and other buildings and landscapes
2	stone carving	The themes are mainly flowers and grasses, curly leaf patterns, etc.; stone lions, stone dogs in the Leizhou area of western Guangdong	The overall contour shape, inductive hue and different types of morphology are used independently	Mainly used in games, animation columns, pillar foundations, beams, sills, railings, steps, archways, recessed gate veneers, etc
3	Brick	Various patterns of characters, flowers, birds and animals are carved on the green bricks, and the themes are character stories, plums, chrysanthemums, peonies, vases, flowers and fruits. It is also made in a continuous pattern of prefabricated tiles	The overall contour shape, inductive hue and different kinds of morphology are used independently or repeatedly	It is used in animation, building parts in games, leaking windows and flowers, and other scenes
4	Gray sculpture	Shaping on the building, divided into color drawings and batches, color painting is to paint landscapes, characters, birds and beasts, flowers, patterns and other murals on the wall; the theme is historical figures, mythological stories, landscape landscapes, flowers and birds and other paintings; gray batch is gray sculpture decoration, the theme is Hanging fish, chicken tails, dragons, water beasts, etc.	The overall contour shape, inductive hue and different types of morphology are used independently	It is used in animation, the lintels of buildings in games, window lintels, eaves tile ridges, gable walls, and courtyard walls

5	Ceramic sculpture	Clay is molded into the shape required for architectural decoration, with themes such as figures, landscapes, flowers, birds, or patterns	The overall contour shape, inductive hue and different types of morphology are used independently	It is used in animation, ridge decoration on the roof of game scenes, leaky windows in courtyards, flower walls, railings, flower beds, etc
6	Ridge ornament	Flat Ridge, Dragon Boat Ridge, Dragon Phoenix Ridge, Swallowtail Ridge, Curly Grass Ridge, Leaky Ridge, Bogu Ridge	The overall contour shape, inductive hue and different types of morphology are used repeatedly	Used in animation and game scenes, the profile of a house
7	Side gables	The three shapes of herringbone, pot ear and square ear were used in the early days for the residences of officials and eunuchs	The overall contour shape, inductive hue and different types of morphology are used repeatedly	Used in animation and game scenes, the side contours of residential houses, especially the "pot ear" gable, are a unique form of Cantonese architecture.
8	Green brick walls	Green brick construction, blue gray, brick seam composition	The overall contour shape, inductive hue and different types of morphology are used repeatedly	Used in animation and game scenes, the front and side walls of the house are represented
9	Oyster shell wall	Oyster shell mechanism, bright silver	The overall contour shape, inductive hue and different types of morphology are used separately	Used in animation and game scenes, the front and side walls of the house are represented
Interior decoration				
10	Illuminate the wall	Blocking the view, brickwork, rectangles, unicorns for official residences, patterns for the rich, flowers, birds and animals, planes, reliefs	The overall contour shape and inductive tone are used independently	Used in animation and game scenes after the gate enters the house and in front of the inner house, the decorative content distinguishes identity and status
11	column	Maroon, wooden pillar stone foundation, column paint, line foot pattern, column base carving decorated with square, round, drum-shaped, semi-concave drum shape, tunic waist type, lotus shape, overlapping shape, octagonal, hexagonal	The overall contour shape and inductive tone are repeatedly used	Used in animation, corridors in game scenes, and house structures
12	Cornice beam frame	The subject matter is animals, plants or patterns	The overall contour shape and inductive tone are repeatedly used	Used in animation and game room scenes
13	Leaking windows	Brick, pottery, glass, iron branches, geometric patterns	The overall contour shape and inductive tone are repeatedly used	It can be used in animation and outdoor courtyard scenes
14	Flower wall	The shape of the wall opening hole and the door opening include: round, bottle-shaped, octagonal	The overall contour shape and inductive tone are used independently	It can be used in animation and outdoor courtyard scenes, and can be combined with leaky windows
15	balustrade	Straight, ornamental, swastika, money, beauty leaning. Indoor wood; outdoor stone, brick and glazed brick; the theme is flowers, trees, birds and animals	The overall contour shape and inductive tone are repeatedly used	Used in animation and outdoor game scenes
16	door	Including the door, hall door, door, indoor screen door, etc., of which the hall door is both a door and a window, with ventilation and lighting functions, often designed to be demolished in summer and installed in winter	The overall contour shape and inductive tone are used independently	Used in animation, game scenes, backgrounds, etc
17	Lattice fan	The number is even, the division between the openings, the pattern of the core is mostly decorated with squares, stripes, diamond flowers, swastikas, ice crack textures and other patterns; high-end grid themes are carved with flowers, birds, plants, animals, character stories and other carvings	The overall contour shape and inductive tone are repeatedly used	It is used in animation, game scenes, performance stage backgrounds, etc
18	Window	Sill windows, Manchurian windows, branch windows and checkered windows, etc., sill windows of flowers, texts, geometric figures, etc., two columns on the left and right of the window, each column up and down two breaks, the upper section can be supported, the lower section can be picked. The shape of the Manchurian window is square, divided into three sections of the upper, middle and lower to form a nine-palace lattice window, and its lattice window is rich in pattern, often inlaid with stained glass, and the light passes through to show a sense of grandeur	The overall contour shape and inductive tone are repeatedly used	It is used in animation, game scenes, performance stage backgrounds, etc

Table 2 Categories, the distillation of elements and ways of transformation and application of architectural decoration in Guangfu

19	Partition	Divided into movable and fixed types, the GF part is made into the form of a Bogu frame	The overall contour shape and inductive tone are used separately	It is used in animation, game scenes, performance stage backgrounds, etc
20	Enclosures	Dividing spaces can also be used as pure decoration – hardwood carved into geometric patterns, flora and fauna, tasks or stories	The overall contour shape and inductive tone are repeatedly used	It is used in animation, game scenes, performance stage backgrounds, etc
21	Hang down	Decorative elements using latticework to form a network	Overall contour shape, generalized tone repeated use	Apply to the square between the two columns in the scenic interior or between the two eaves of the outer corridor
22	Comices	The use of flowers, birds, animals, patterns and ornaments. The use of shallow relief or hidden carving process form	Overall contour shape, generalized color tone used separately	Game, animation in the factory plan building gable under the seal eaves board
23	Transverse branches	Use the lychee panels to form a pattern pattern	The overall contour shape and inductive tone are repeatedly used	In the digital artwork scene, the screen wall is set in the interior window, the upper half of the lattice fan, or the upper part of the column
24	Large step bricks	Red, cyan, square	Overall contour shape, inductive tones, and dividing lines are used repeatedly	Scene ground use
25	Landscape decoration	It is composed of trees, shrubs, bonsai, trees and flowers, flower ponds, fish ponds, rockeries, etc., and waterstone mountain ponds, small bridges and flowing water, and curved pavilions	Overall contour shape, inductive tone modeling, repeated use	Use of the interior and background of the courtyard of the mansion in the scene of digital works
Chinese inherent				
1	Transition under the eaves	Bucket arches, foreheads, beams, ang, seat buckets, ox leg ornaments	Overall contour shape, inductive tone modeling, repeated use	In the digital work scene, Guangdong's local modern Chinese and Western architecture was used during the Republic of China period
2	Roof kissing beast	Dragon kisses, fairy beasts, sheep, phoenix-shaped aquatic animals	Overall contour shape, inductive tone modeling, repeated use	In the digital work scene, Guangdong's local modern Chinese and Western architecture was used during the Republic of China period
3	Pillar foundation	Square, octagonal, round, single and double-layer raspberry lotus, simple and beautiful, reflecting the style of official architecture	Overall contour shape, inductive tone modeling, repeated use	In the digital work scene, Guangdong's local modern Chinese and Western architecture was used during the Republic of China period

Theoretical establishment of knowledge "fragmentation" conversion process

Guangfu architectural decoration since the Qin Dynasty has gradually accumulated and integrated a vast system of culture and art and social humanities, vertically containing the Chinese architectural and cultural characteristics of different periods of the dynasties, horizontally both at home and abroad across geographical regions; this broad cultural span and the unique look and system of harmonious coexistence of Chinese and foreign cultures, the user application scene of digital media works "Fragmentation" is a way for users in the Internet era to take in the content they need and accomplish specific goals in a fragmented and discontinuous manner at any time and in any space with the help of the full-coverage network and modern intelligent mobile terminals, among the vast amount of network information resources. This determines that information acquisition and cognitive mode are fragmented in the mobile Internet context. Processing and adapting the fragmented content into a form suitable for Internet communication and then reconstructing it into systematic content for users' participation in cognition and interpretation and application is an effective transformation method of traditional culture digitization. Only through digital media platforms can it come to life and spread in today's information society. The fragmented information content is superficial and lacking in depth, with little relevance, scattered and unsystematic, no clear direction, flexible and diverse ways of cognition and access, and solid independent initiative, a popular and "fast food" way of use. "It is also an interactive process of adapting information, symbols,

and patterns to digital communication and facilitating audience acceptance (Figure 2).

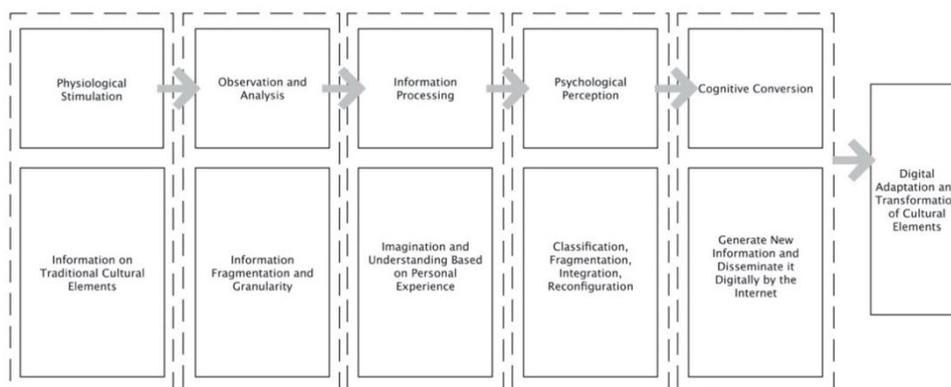


Fig.1 Interactive process of digital adaptation and transformation of traditional cultural elements accepted by audiences

Adaptability of the transformation process

The original forms of Guangfu architectural decorative elements are mostly traditional media products, such as photos, objects, text, etc. Digital media works are products of modern technology, which cannot be applied directly and need to be designed and created with secondary standardization, such as pixelation, functionalization, parameterization, and screen adaptation. For example, take the digital animation work "Guangdong ancient construction" as an example; its realistic prototype includes several kinds of Guangfu buildings and various parts of the building's interior and exterior decorative components, these original forms and contents cannot be directly applied to the animation design, but only through induction and refinement, the actual material will be flattened, graphic, cartoon, abstract deformation to retain its essence and The core, according to the needs of the animation content, the re-creation of Guangfu architectural decorative elements (such as Figure 3) (Hu, 2020).



Fig.2 The shape of the residential houses in the Guangfu area is designed to be transformed in a form that conforms to the laws of expression of motion-picture animation (MG animation)

Discussions

Focus on the expression of typical new media elements in the context of various forms of new media expressions.

It is necessary to focus on selecting some entry points that are more suitable for the

implantation and effective performance of traditional cultural elements, such as the LOGO in the App interactive interface, the scenes of games and animation works, the layout and decoration of indoor and outdoor space for character performances. The environment in which the characters are located, the primary color of games and animation works and the characteristics of the era in which the story takes place, etc., which can fully express the decorative elements of Cantonese architecture in an immersive manner, resulting in the "conformal" and "conformal" and "conformal" and "key common elements" of vital common elements. The role of "metaphor" becomes a granular visual message that sets off the theme of the work.

Construction of transformation models

Through research and analysis, after having the theoretical support and the grasp of the research focus, it is necessary to establish a corresponding digital transformation model of Architectural Decoration Elements of Guangfu through the accumulation of specific design project practices, which should be flexible and adaptive, sustainable development and application capabilities. It can be effectively used in various digital media works. Fragmented visual elements mainly refer to the essential elements that make up the visual object of the interface, such as the LOGO of the application or game, interface icons, characters, scenes, props, etc.; these elements play an essential role in conveying helpful information as a medium and are the basic morphemes and symbols in the visual communication language. As far as the specific design is concerned, text, images, symbols, graphics, etc., constitute information elements, while points, lines, surfaces, bodies, colors, materials, etc., constitute formal elements.

Empirical validation of the "reframing" of new media content

"Reconstruction" is a kind of deep cognition and overall fragmented knowledge coherence and awakening is the user according to the content created by the designer, generated points of interest and these interests have been coherently reconstructed, the focus is to rebuild the fragmented knowledge into the maximum, the most optimal, the most suitable for the user's own needs of the resources of the overall profile. Based on the original knowledge system of Guangfu architecture and decoration, the fragmented cultural elements are "restored" according to their categories and their positions on the structural map of the cultural knowledge system and reconstructed into the original knowledge map before the knowledge was fragmented. To maximize, To the greatest extent possible, they are brought back to their original state, and their interconnectedness and structure lost due to fragmentation are restored. By restoring the "fragmented" resources such as icons, characters, props, scenes, graphic images, and motion pictures to the original cultural knowledge system, knowledge integrity can be maintained (Hu, 2020).

Knowledge from Research

Based on the principle of "emotional design," the traditional elements are broken up and redesigned through dynamic, interactive, and procedural digital transformation, abstracting the figurative visual images and concrete objects or even deconstructing and fragmenting them based on retaining the connotation genes of the Guangfu architectural decorative elements, the designers to recreate. From the perspective of the breadth of information, practical information fragmentation should be for all information can be broken down into chapters, paragraphs, sentences, words, words, and other unit levels and form gradually descending modules, penetrating the digital media works, creating a tentative new visual and logical consistency of

the normative, traditional cultural transformation method. (Figure 4).

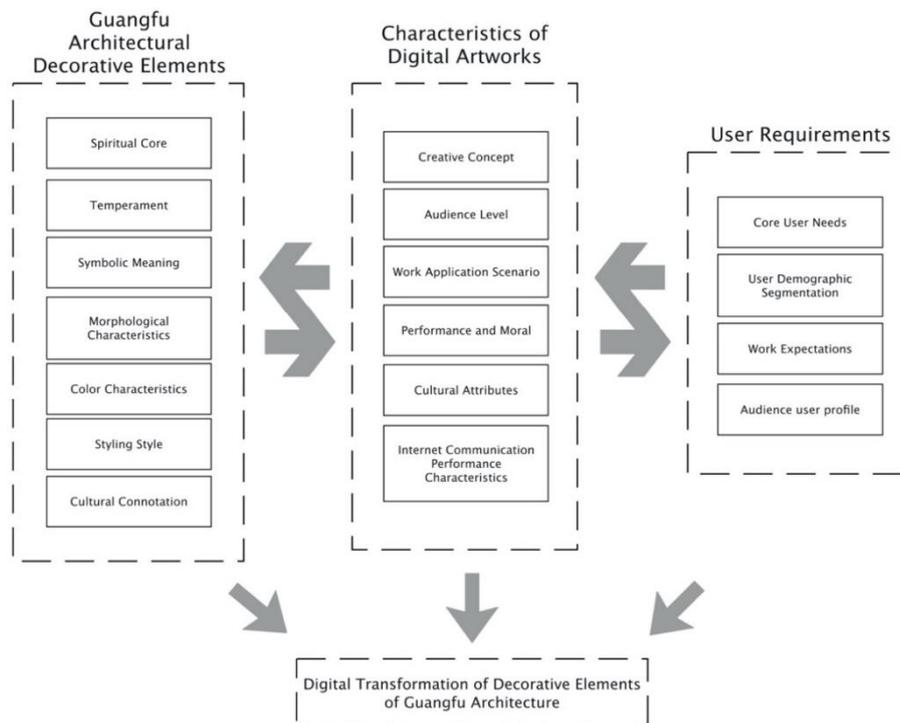


Fig.4 User-centered, fragmented cultural elements are integrated and used in digital works

Conclusion

The design study of the fragmentation and reconstruction process of Guangfu architectural decoration elements in the new media application is an innovative idea of how to "revitalize" traditional culture into a social and commercial value today and an effective solution to inherit and disseminate traditional culture. The dissemination and transmission of traditional culture have an innovative technological platform supported and empowered by technology, using the powerful energy of digital media technology and applications to disseminate Guangfu's standard cultural content to keep pace with socio-economic development. The architectural elements of Guangfu, under the view que of the new media platform, can effectively promote and restore its original face and can standardize the management of traditional cultural communication methods and contents while translating and revitalizing standard cultural communication contents and elements, standardizing the context of communication contents, and sublimating the static form of communication to a digital multimedia expression. Through the research of this paper, the innovative design theory required for the digital transformation of traditional culture is constructed.

Suggestions

The active interaction and mutual empowerment between digital media and cultural content have transformed digital works from cold technical expressions to new art forms with warmth and emotion (Han, 2019). Through this paper, the study provides new methods and strategies to catalyze the design use of traditional culture awareness, revitalization, and inheritance based on daily social life and digital media technology as a starting point, allowing

more users to jointly participate in the dissemination and re-creation to generate significant social values.

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