A Survey of Hani Traditional Costume Pattern Preference from the Perspective of Contemporary College Students and Its Application in the Field of Design

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Abstract. With the rapid development of economy and the constant impact of various foreign cultures, more and more traditional costume patterns of ethnic minorities have gradually declined or even disappeared, and the Hani nationality, as an ancient inhabitant of Yunnan, is no exception. In order to inherit and carry forward Hani national culture and apply the element of traditional national costume pattern to modern design better, this paper takes the symmetry and balance, harmony and contrast, rhythm and rhythm as independent variables, and esthetic preference as dependent variables, and carries out three groups of three-factor mixed experiments.

The results from the experiments indicates that contemporary college students prefer "symmetry", "contrast" and "rhythm" in the expression of Hani costume patterns under the classification of the rules of formal beauty, and there are differences in their professional backgrounds, which provides theoretical basis for the design practice of Hani costume patterns. In conclusion, design strategies of Hani costume patterns in various fields on the basis of the results from the experiments were put forward in this paper.

Introduction

China is a multi-ethnic country, in the long history of development, it has bred a variety of national culture with different characteristics, and the colorful and different patterns of clothing are not only the symbol of the history and culture of each nation, but also a precious cultural heritage. Inheriting and promoting the patterns of national clothing is of great significance to maintain the integrity of the Chinese nation, protect and promote the sustainable development of national culture Significance. Hani's clothing patterns are representative in Southwest China because of their numerous branches, wide areas, exquisite patterns, rich and varied styles. As a product of the harmonious unity of content and form, and the perfect combination of art and technology, they have been loved by local people for thousands of years, and widely spread and used [1].

Contemporary college students are an important group that will step into the society. Contemporary college students' aesthetic preference refers to the psychological tendency of students in the process of appreciating art works, which is a selective and directional aesthetic activity. Contemporary college students are an important group that is about to enter the society. Their aesthetic activities not only have the functions of cognition, inspiration, education and influence for college students, but also have the functions of guidance, purification, transformation and prediction for the society [2]. Their views and aesthetic preferences on national patterns to a certain extent affect all levels of society. By investigating the aesthetic preference of contemporary college students for Hani costume patterns, we can reflect the popularity of patterns, further understand the social culture, folk custom and aesthetic taste of Hani costume patterns, and apply abstract visual language symbols to modern design to enrich the vocabulary of modern design, so as to develop modern design[3].

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At present, there are many articles and works on Hani ethnic costume patterns in the research of Hani ethnic costume patterns. In the relevant materials I consult, the main research on Hani ethnic costume patterns are as follows: Mao Youquan is one of the first scholars to conduct in-depth research on Hani ethnic costume culture, and his works are Hani ethnic costume cultural characteristics and connotation [4]. Most of them introduced some common dress and hair ornament patterns of Hani women and the cultural connotation contained in them; Wang Qinghua's "on terrace culture"[5], Honghe Hani society's "Hani study"[6] and Yunnan Ethnic Affairs Committee's "Hani culture grand view"[7] and other works mainly analyzed and introduced Hani from a macro perspective. Among them, Wang Qinghua, a scholar, summed up the important characteristics of Hani's clothing patterns in the paper "out of terraced field, suitable for terraced field, Hani's clothing patterns come from self-sufficient terraced field agriculture, from the cultivation of raw materials, textile, indigo dyeing, cutting, style, all rely on terraced field agriculture and adapt to terraced field agriculture"; Mr. Hong Minhua's Analysis and application of pattern modeling and design of Hani's traditional clothing[8], research on Hani's clothing pattern art by Tan Yangyang of Kunming University of technology[9], research and design application of Hani's clothing in Honghe Prefecture of Yunnan Province by Yang Danhua of Honghe Prefecture Museum[10], aesthetic characteristics and cultural connotation of Hani's Yi Che branch clothing by Yang Hongling of Yunnan University[11], Kunming Institute of Technology Li Yang's research on the visual language of Hani's costume patterns[3] and other articles have made a profound discussion on the pattern aesthetic aspect of Hani's costume patterns, and all of them attach importance to the cultural connotation. Although there are many documents about the research of Hani costume patterns, most of them start from the visual language, cultural level, art level and other aspects. This paper uses the perspective of social psychology to study, mainly using psychological analysis and cognitive point of view to interpret the relationship between Hani costume patterns and the aesthetic preference of contemporary college students, which has certain practical research significance.

Experimental Part

Variable Selection

The *The Psychology of Sex Differences* [12] works of German psychologist steilen is mention. There are significant differences between the genders of art work observers. Women will pay more attention to the details of the painting, such as facial expressions, clothing patterns, etc., while men will learn more about the overall sense of the picture and grasp the macro trend. In terms of aesthetic preference of artistic features, men prefer abstract style more than women's sense of space and logic, while women's emotional expression is stronger and more sensitive than men's, and they prefer realistic style more. In terms of color, style, line and other forms of expression, women prefer more soft and beautiful pictures, while men prefer more bold and bold painting styles.

According to the author's analysis, students from different majors of Arts and sciences have different ways of thinking, students from different learning stages of this master have different aesthetic preferences because of their different experience: students from arts have more contact with literature, and aesthetic may have more emotional color; students from science have more contact with practice, and may value reality more. After four years of accumulation and precipitation, the master students may be more stable than the undergraduate students; the undergraduate students may be young and energetic, and their thinking may be more active. Based on the above research and analysis, this paper selects gender, professional background and learning stage as demographic variables, and speculates that it may be an important factor affecting the aesthetic preference of contemporary college students.
Research Methods

Experimental Design

This study uses the experimental method to investigate the preferences of different gender, professional background and different learning stages of college students for different forms of Hani costume patterns under the rules of beauty. The main investigation method is questionnaire survey. In order to avoid the interference caused by too many choices, the subjects only need to choose one of two patterns under different classifications. There are three groups of mixed experiments in this study:

(1) A study on the preference of Hani’s dress patterns under the formal beauty rules, i.e. (formal beauty rules: symmetry and balance) × 3; (gender: male, female) × 2; (professional background: arts, Science) × 2 (learning stage: undergraduate, master's degree);

(2) The research on the preference of Hani’s dress pattern under the formal beauty rule is a mixed experiment of three factors (formal beauty rule: contrast and harmony) × 3; (gender: male, female) × 2; (professional background: arts, Science) × 2 (learning stage: undergraduate, Master);

(3) The research on the preference of Hani’s dress pattern under the formal beauty rule is a mixed experiment of three factors (formal beauty rule: rhythm and rhythm) × 3; (gender: male, female) × 2; (professional background: arts, Science) × 2 (learning stage: undergraduate, Master);

Subjects

The subjects mainly come from the college students of Southwest Forestry University in Kunming, Yunnan Province. The total number of the experiment is 250. Finally, 227 valid questionnaires are obtained, including 76 and 151 people grouped by men and women, 117 and 110 people grouped by the background of liberal arts and science, 154 and 73 people grouped by the study stage of this master's degree. The subjects' vision, color perception and psychology were all normal.

Experimental Materials

In this study, the experimental materials first select the representative Hani clothing patterns from the literature, such as straight stripe, diamond pattern, octagonal pattern, sun pattern and milk pattern as the "motif", and use the modern pattern construction method for secondary creation. After deformation, this new form has the basic form and identification degree of "motif", but its In this paper, we mainly use Photoshop and Adobe Illustrator software to decompose and combine them, break them up and reconstruct them, replace them and form variation to create patterns under different forms of beauty. In order to ensure the consistency of experimental materials, the size and clarity of all patterns are consistent, and the background of each pair of patterns is consistent Color is the same. Finally, the experimental materials need to be selected by aesthetic score and rationality score to ensure the balance between the materials.

Aesthetic score is to ensure the aesthetic degree of the experimental materials, so that the subsequent application can be widely accepted by the public; reasonable score is to ensure that there is a greater degree of identification between the secondary creation pattern and the "motif", so as to prevent excessive pursuit of aesthetic and abandon the fundamental purpose of this experiment. According to the formal beauty principle, the experiment is divided into three groups, each group has six pairs of patterns, each pair has two patterns, and each pair of patterns is added with "motif" graphics on the left side for rational evaluation reference. Based on the rigor of the experiment, 40 college students (20 boys and 20 girls, who did not participate in the follow-up experiment) were randomly selected to evaluate the aesthetics and rationality of 36 patterns (the highest score was 3, the second score was 2, and the lowest score was 1). Survey results: the average score of aesthetics is 2.384, indicating that the overall performance of the aesthetics of the pattern is good. In order to make its aesthetics reach the highest level of this experiment, the final experimental materials need to delete a pair of patterns with the lowest score in each group. The rationality is divided into 2.912 on average, which shows that the rationality of the experimental pattern is relatively high, and the identification between the pattern and the "motif" is relatively high, so there is no need to change.
Finally, 30 pieces of experimental materials were used to create Hani costume patterns for the second time. The materials were divided into three groups: the first group was symmetry and balance, the second group was contrast and harmony, and the third group was rhythm and rhythm; each group had ten patterns, each "motif" had two patterns, two patterns were a pair of five pairs. In order to ensure that the experimental materials conform to the corresponding rules of formal beauty, ten graduate students majoring in design are invited to grade their conformity. Without informing them of the corresponding classification, the subjects are invited to classify them. For example, ten patterns in the first group are randomly arranged. The subjects are invited to classify according to symmetry and balance, and so on. The results show that the conformity rate with the expected assumption is high. It was 98.33%, indicating that there were significant differences in styles among the same group, and the texture was highly consistent with the formal beauty rule. In order to better understand the situation of the students, the questionnaire added information survey on the basis of experimental materials, mainly including gender, major, learning stage and understanding of Hani ethnic patterns. See Figure 1, figure 2 and figure 3 for the specific form of the above grouping:

![Figure 1. Group 1: Symmetry and Equilibrium.](image)

![Figure 2. Group 2: Contrast and Harmony.](image)

![Figure 3. Group 3: Rhymes and Rhythms.](image)

**Experimental Process**

After getting the consent of teachers and students in advance, we will use our spare time to send out questionnaires. There are two questionnaires in four sides. The first is information Q & A. The second side is symmetry and balance, the third side is contrast and harmony, and the fourth side is rhythm and rhythm; the three patterns are presented in the form of two contrast, and the subjects only need to tick the edge of their favorite patterns; after the subjects fill in the questionnaire, they randomly interview several students, mainly focusing on the reasons for liking a certain pattern, your views on ethnic patterns, etc. At the time of the visit, relevant records shall be made and representative opinions or opinions shall be screened. The test time of each class is about 15 minutes.
Investigation Results and Analysis

Findings

Contemporary College Students' Aesthetic Preference for Symmetry and Balance in Hani Costume Patterns

In the aspect of symmetrical and balanced aesthetic preference in Hani costume patterns, the chi-square fit test was carried out on the data. Generally speaking, contemporary college students prefer "symmetrical" pattern in the aspect of Hani costume pattern symmetry and balance, accounting for 54.98% and 45.02% respectively (see Figure 4); observation frequency (n = 624,511) and expected frequency There was deviation in the second time (n = 567.5, 567.5). Nonparametric test shall be carried out:

\[
X^2 = \sum \frac{(f_i - npi)^2}{npi} = \left( \frac{624 - 567.5}{567.5} \right)^2 + \left( \frac{511 - 567.5}{567.5} \right)^2 = 11.250
\]  

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so \( p < 0.05 \), that is to say, in the dimension of "symmetry and balance", the aesthetic preference of contemporary college students is significantly different. The overall selection frequency of symmetrical and balanced performance content is shown in Figure 4:

![Figure 4. Frequency of overall selection of symmetrical and balanced presentation content.](image)

The results show that there is a weak deviation between the actual observation frequency of male students (n = 205,175) and the expected frequency (n = 209,171), and between the actual observation frequency of female students (n = 419,336) and the expected frequency of female students (n = 415,340). Non parametric test:

\[
X^2 = \sum \frac{(f_i - npi)^2}{npi} = \left( \frac{205 - 209}{209} \right)^2 + \left( \frac{175 - 171}{171} \right)^2 = 0.256
\]  

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so \( p > 0.05 \), that is to say, in the dimension of "symmetry and balance", there is no significant difference in aesthetic preference of "symmetry and balance" between contemporary college students of different genders.

The results show that in terms of the professional background of contemporary college students, there is a deviation between the actual observation frequency of liberal arts students (n = 344,241) and the expected frequency (n = 322,263); there is also a deviation between the actual observation frequency of science students (n = 280,270) and the expected frequency (n = 302,248). Non parametric test:

\[
X^2 = \sum \frac{(f_i - npi)^2}{npi} = \left( \frac{344 - 322}{322} \right)^2 + \left( \frac{241 - 263}{263} \right)^2 = 6.898
\]  

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The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so p < 0.05, that is to say, in the dimension of "symmetry and balance", there are significant differences in the aesthetic preference of "symmetry and balance" among contemporary college students of different professional backgrounds, among which the students of Arts prefer "symmetry" clothing patterns more than those of science.

Furthermore, the chi square independence test is carried out in the learning stage. The results show that in the learning stage of contemporary college students, there is a weak deviation between the actual observation frequency of undergraduate students (n = 415,355) and the expected frequency (n = 423,347); there is also a weak deviation between the actual observation frequency of master students (n = 209,156) and the expected frequency (n = 201,164). Non parametric test:

\[ x^2 = \sum_{i=1}^{k} \frac{(f_i - n_{pi})^2}{n_{pi}} = \left( \frac{(415-423)^2}{423} + \frac{(355-347)^2}{347} \right) + \left( \frac{(209-201)^2}{201} + \frac{(156-164)^2}{164} \right) = 1.044 \]

Degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so p > 0.05, that is to say, in the dimension of "symmetry and balance", there is no significant difference in aesthetic preference of "symmetry and balance" among contemporary college students in different learning stages. The frequency of contemporary college students with different gender, professional background and learning stage to choose the content of "symmetry and balance" is shown in Figure 5:

![Figure 5. Frequency of contemporary college students' choice of symmetry and balance contents in different genders, professional backgrounds and learning stages.](image)

**Contemporary College Students' Aesthetic Preference for Harmony and Contrast in Hani Dress Patterns**

The aesthetic preferences of harmony and contrast in Hani dress patterns were tested by chi square fitting in terms of the content of reconciliation and contrast. Generally speaking, the contemporary university students preferred the "contrast" pattern to the Hani dress pattern symmetry and balance, accounting for 53.74%, and the harmonic pattern selection accounted for 46.26%; the observation frequency (n=525,610) and the expected frequency (n=567.5, 567.5). Nonparametric test shall be carried out:

\[ x^2 = \sum_{i=1}^{k} \frac{(f_i - n_{pi})^2}{n_{pi}} = \left( \frac{(525-567.5)^2}{567.5} + \frac{(610-567.5)^2}{567.5} \right) = 6.366 \]

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so p < 0.05, that is to say, in the dimension of "harmony and contrast", there are significant differences in aesthetic preferences of contemporary college students. See Figure 6 for the overall selection frequency of harmonic and comparative performance content:
The results show that there is a deviation between the actual frequency of observation of male students (n = 186,194) and the expected frequency (n = 176,204), and between the actual frequency of observation of female students (n = 339,416) and the expected frequency of observation (n = 349,406). Non parametric test:

\[
X^2 = \sum \frac{(f_i - np_i)^2}{np_i} = \left[ \frac{(186-176)^2}{176} + \frac{(194-204)^2}{204} \right] + \left[ \frac{(339-349)^2}{349} + \frac{(416-406)^2}{406} \right] = 1.591
\]  

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so \( p > 0.05 \), that is to say, in the dimension of "harmony and contrast", there is no significant difference in the aesthetic preference of "harmony and contrast" among contemporary college students in different learning stages.

The results show that in terms of the professional background of contemporary college students, there is a deviation between the actual observation frequency of liberal arts students (n = 291,294) and the expected frequency (n = 271,314); there is also a deviation between the actual observation frequency of science students (n = 234,316) and the expected frequency (n = 254,296). Non parametric test:

\[
X^2 = \sum \frac{(f_i - np_i)^2}{np_i} = \left[ \frac{(291-271)^2}{271} + \frac{(294-314)^2}{314} \right] + \left[ \frac{(234-254)^2}{254} + \frac{(316-296)^2}{296} \right] = 5.676
\]  

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so \( p < 0.05 \), that is to say, in the dimension of "harmony and contrast", there are significant differences in the aesthetic preference of "harmony and contrast" among contemporary college students of different professional backgrounds, among which the students of Arts prefer "harmony" dress patterns, while the students of science prefer "contrast" dress patterns.

Furthermore, the chi square independence test is carried out in the learning stage. The results show that in the learning stage of contemporary college students, there is a weak deviation between the actual observation frequency of undergraduate students (n = 347,423) and the expected frequency (n = 356,414); there is also a weak deviation between the actual observation frequency of master students (n = 178,187) and the expected frequency (n = 169,196). Non parametric test:

\[
X^2 = \sum \frac{(f_i - np_i)^2}{np_i} = \left[ \frac{(347-356)^2}{356} + \frac{(423-414)^2}{414} \right] + \left[ \frac{(178-169)^2}{169} + \frac{(187-196)^2}{196} \right] = 1.316
\]  

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so \( p > 0.05 \), that is to say, in the dimension of "harmony and contrast", there is no significant difference in the aesthetic preference of "harmony and contrast" among contemporary college students in different learning stages. The frequency of contemporary college students with different genders, professional backgrounds and learning stages choosing the content of "reconciliation and comparison" is shown in Figure 7.
In terms of rhythm and rhythm, the aesthetic preference of rhythm and rhythm in Hani's clothing patterns is tested by chi square fitting. Generally speaking, contemporary college students prefer rhythm patterns in terms of rhythm and rhythm, accounting for 64.05% and 35.95% respectively, and the frequency of observation (n = 727,408) and the frequency of expectation (n = 567.5, 567.5).

Nonparametric test shall be carried out:

\[
X^2 = \sum_{i=1}^{k} \frac{(f_i - npi)^2}{npi} = \frac{(727 - 567.5)^2}{567.5} + \frac{(408 - 567.5)^2}{567.5} = 89.658
\]

The degree of freedom = (number of rows - 1) \times (number of columns - 1) = (2-1) \times (2-1) = (1), so p < 0.05, that is to say, in the dimension of "rhythm and rhythm", the aesthetic preference of contemporary college students is significantly different. The overall selection frequency of rhythm and rhythm performance content is shown in Figure 8:

The results show that there is a deviation between the actual observation frequency of male students (n = 234,146) and the expected frequency (n = 243,137), and between the actual observation frequency of female students (n = 493,262) and the expected frequency of female students (n = 484,271). Non parametric test:

\[
X^2 = \sum_{i=1}^{k} \frac{(f_i - npi)^2}{npi} = \left( \frac{234 - 243}{243} \right)^2 + \left( \frac{146 - 137}{137} \right)^2 + \left( \frac{493 - 484}{484} \right)^2 + \left( \frac{262 - 271}{271} \right)^2 = 1.390
\]

The degree of freedom = (number of rows - 1) \times (number of columns - 1) = (2-1) \times (2-1) = 1, so p > 0.05, that is to say, in the dimension of "rhythm and rhythm", there is no significant difference in the aesthetic preference of "rhythm and rhythm" among contemporary college students of different genders.
The results show that in terms of the professional background of contemporary college students, there is a deviation between the actual observation frequency of liberal arts students (n = 383,202) and the expected frequency (n = 375,210); there is also a deviation between the actual observation frequency of science students (n = 344,206) and the expected frequency (n = 352,198). Non parametric test:

\[ \chi^2 = \sum \frac{(f_i - npi)^2}{npi} = \left[ \frac{(383 - 375)^2}{375} + \frac{(202 - 210)^2}{210} \right] + \left[ \frac{(344 - 352)^2}{352} + \frac{(206 - 198)^2}{198} \right] = 0.981 \]

(11)

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so p > 0.05, that is to say, in the dimension of "rhythm and rhythm", there is no significant difference in the aesthetic preference of "rhythm and rhythm" among contemporary college students of different professional backgrounds.

Furthermore, the chi square independence test is carried out in the learning stage. The results show that in the learning stage of contemporary college students, there is a deviation between the actual observation frequency of undergraduate students (n = 481,289) and the expected frequency (n = 493,277); there is also a deviation between the actual observation frequency of master students (n = 246,119) and the expected frequency (n = 234,131). Non parametric test:

\[ \chi^2 = \sum \frac{(f_i - npi)^2}{npi} = \left[ \frac{(481 - 493)^2}{493} + \frac{(289 - 277)^2}{277} \right] + \left[ \frac{(246 - 234)^2}{234} + \frac{(119 - 131)^2}{131} \right] = 2.526 \]

(12)

The degree of freedom = (number of rows - 1) × (number of columns - 1) = (2-1) × (2-1) = 1, so p > 0.05, that is to say, in the dimension of "rhythm and rhythm", there is no significant difference in the aesthetic preference of "rhythm and rhythm" among contemporary college students in different learning stages. The frequency of contemporary college students of different genders, professional backgrounds and learning stages choosing the content of "rhythm and rhythm" is shown in Figure9:

![Figure 9. Frequency of contemporary college students' choice of "rhythm and rhythm" contents in different genders, professional backgrounds and learning stages.](image-url)

**Interview Results**

After the experiment, 30 subjects were randomly selected to understand the reasons of their choice and typical behavioral feelings, so as to understand the factors that affect the aesthetic preference of contemporary college students for Hani costume patterns in a deeper level under the specific environment and mood conditions.

In terms of symmetry and balanced performance, many students mentioned that "symmetry" pattern gives them a rigorous feeling, which is more in line with the characteristics of ethnic minority pattern; some students found that "symmetry" pattern is more common in ethnic costumes and more acceptable. In the aspect of harmony and contrast performance, most students feel that "contrast" pattern is more attractive, especially in the choice of female students and science students. Some students think that the "contrast" pattern is more tension in vision, and the screen performance is dry and strong, while the "harmony" pattern is more soft, and there is no strong first visual feeling brought by the "contrast" pattern. In terms of rhythm and rhythm performance, some students think that there
are several "rhythm" patterns that are too lively and fancy, which will make them associate with other things and disturb their attention; others think that regular "rhythm" patterns are orderly and orderly, and strong rhythm makes their psychology produce strong shock and awe, and they are very looking forward to using similar patterns to design Go in.

Result Analysis

According to the experimental data analysis and interview results, there are significant differences in Contemporary College Students' aesthetic preferences in terms of symmetrical and balanced performance content. Compared with "balanced" pattern, contemporary college students prefer "symmetrical" pattern, which is more obvious in the selection of arts students. The main reason is that in a single pattern of clothing, symmetrical pattern can make people feel more perfect, peaceful and harmonious in vision and psychology, and has a strong appreciation, which can first attract the attention of the observer, and has a high degree of familiarity and a certain sense of amiability; in contrast, the more complex and deep balanced pattern obviously does not get the observer's on a single pattern of clothing Fangxin, perhaps this rich form can only shine in multi-element collection of design works. In terms of gender, students of different genders have no obvious preference for the content of "symmetrical and balanced" patterns. In terms of professional background, arts students prefer "symmetrical" patterns more than science students, which may be due to different ways of learning and thinking. Science students usually practice more, think more open and active, and prefer novel and interesting things. Arts students usually contact literature more, have a relatively quiet personality, and have less acceptance of strange things than science students. In terms of learning stage, students in different learning stages have no obvious preference for the content of "symmetry and balance".

In terms of the content of harmony and contrast, there are significant differences in the aesthetic preferences of contemporary college students for the performance styles of harmony and contrast patterns. Compared with "harmony" pattern, contemporary college students prefer "contrast" pattern, and most of the students mentioned in the above survey feel that "contrast" pattern is more attractive, especially in the selection of science students. In terms of gender, students of different genders have no obvious tendency to the content of "harmony and contrast" patterns. In terms of professional background, science students prefer "contrast" patterns to arts students, which may be because science students are more active in thinking and prefer patterns with strong visual contrast compared with arts students. In terms of learning stage, students in different learning stages have no obvious preference in the content of "reconciliation and comparison". In terms of the content expression of harmony and contrast patterns, the "contrast" patterns have higher identification, distinct modeling priorities, more prominent focus, more vivid image and won the favor of more students.

In terms of the content of rhythm and rhythmic expression, there are significant differences in the aesthetic preferences of contemporary college students for the expression style of rhythm and rhythmic patterns. Compared with "rhythm" pattern, contemporary college students prefer "rhythm" pattern. There are two reasons why contemporary college students like "rhythm" patterns: first, "rhythm" patterns have a strong "mechanical beauty" in their performance, and rhythmic images can be seen everywhere around us; second, although "rhythm" patterns are a more colorful and varied form of beauty based on "rhythm" patterns, they are very popular in a single pattern It is difficult to reflect the overall rhythmic movement of the picture, which leads to many students' lack of deep understanding of it. As mentioned in the above survey, some students think that the pattern of "rhythm" is too fancy, and even that it will interfere with their attention. In terms of gender, professional background and learning stage, students of different gender, professional background and learning stage have no obvious tendency to the content of "rhythm and rhythm" pattern. It can be said that most students prefer "rhythm" pattern.

Based on the above research results, this paper puts forward the following three design strategies for the application of the aesthetic preferences of contemporary college students to various design fields under the relevant formal aesthetic principles of Hani costume patterns, specifically as follows:
1. In the aspect of symmetry and balanced expression content, we should choose more "symmetry" patterns. When choosing patterns, we should try our best to choose "motif" which can better represent the characteristics of Hani pattern, and its shape is mostly accepted by contemporary college students. In the design, specific cases need to be analyzed. Due to the difference of professional background in symmetrical and balanced performance content, different schemes can be designed for different audiences. For example, in the design of food packaging for all contemporary college students, symmetrical patterns can be used in the main modeling of patterns, and balanced patterns can be used as auxiliary patterns to the side, bottom or opening part; in the design of posters for film technology students, balanced patterns can be reasonably used to pave the bottom, and then contrast patterns can be used to decorate some smaller parts.

2. In terms of the content of harmony and contrast, because there is a small difference in the number of choices between the two in general, the choice of Hani costume patterns can be five or four or six. When using patterns, we should try our best to ensure their rationality and not excessively bias to a certain type of patterns. Because there are significant differences in aesthetic preferences under the background of different subjects of Arts and Sciences, when designing products for science and engineering students, we should pay more attention to comparative patterns. For example, when designing a desk calendar of the University of Science and Technology, you can make a strong contrast with other colors through a large area of black. On the one hand, you can highlight the main color of the Hani pattern; on the other hand, you can quickly attract users through a strong contrast and become a successful design work.

3. In terms of rhythm and rhythmic expression content, most of the students have chosen the "rhythm" pattern, and there is no significant difference in the aesthetic preferences of different genders, professional backgrounds and different learning stages, so the "rhythm" pattern can be used more in various design works including Hani pattern. For example, in the design of a brochure about Hani culture for all contemporary college students, we can use the "rhythm" pattern as the "motif" for secondary creation to become the cover logo, or as an auxiliary graphic display of nationalization elements.

Epilogue

From the perspective of the aesthetic preference of contemporary college students, this paper deeply analyzes the aesthetic preference of contemporary college students for Hani costume patterns under the classification of formal beauty rules and its reasons, and finally puts forward the design strategies related to Hani culture series design works. The relevant research conclusions are as follows:

1. The overall aesthetic preference of contemporary college students for Hani costume patterns under the classification of formal beauty rules is as follows: in terms of "symmetry and balance" expression content, students prefer "symmetry" pattern; in terms of "harmony and contrast" expression content, students prefer "contrast" pattern; in terms of rhythm and rhythm expression content, students prefer "rhythm" Similar patterns.

2. In terms of gender, professional background and learning stage of contemporary college students, there are significant differences in the aesthetic preference of Hani's clothing patterns under the classification of formal beauty rules, which are embodied in the following aspects: in terms of "symmetry and balance" performance content, arts students prefer "symmetry" pattern more than science students; in terms of "harmony and contrast" performance content, science students prefer "symmetry" pattern more than arts students prefer "contrast" pattern; there is no significant difference in the content of "rhythm and rhythm", different gender, different professional background and different learning stages of aesthetic preferences.

According to the general aesthetic preference characteristics of Hani's clothing patterns under the classification of formal beauty rules of contemporary college students, the author puts forward the design strategies related to Hani's cultural series design works from three aspects of "symmetry and balance", "harmony and contrast", "rhythm and rhythm", which are embodied as follows: in the "symmetry and balance", in general, there can be more games Symmetrical patterns are used, but
specific cases need to be analyzed in the design; in terms of "harmony and comparison", due to the small difference in overall selection, it can be used in half opening or four or six opening, but due to the significant difference in the selection under different professional backgrounds, special cases need to be handled and designed in the face of science colleges with more science students; in terms of "rhythm" In terms of "rhythm", because the students' choice has a one-sided trend and different gender, there is no significant difference in the aesthetic preferences of students from different professional backgrounds and different learning stages, so "rhythm" type patterns can be used more in the design works involving Hani ethnic patterns. However, there are some limitations in this study, including the following two aspects:

1. The research results have their own limitations. The subjects are mainly from Southwest Forestry University, Kunming City, Yunnan Province. The students' aesthetic preferences may be affected by different factors such as regional culture and education level. Therefore, the research results do not fully represent the aesthetic preferences of the National College Students under the relevant formal aesthetic principles of Hani costume patterns.

2. Limitations of research materials. Because the experimental materials are based on the law of formal beauty to classify the Hani Traditional costume patterns into three forms: symmetry and balance, harmony and contrast, rhythm and rhythm, but this does not represent all the Hani Traditional costume patterns; on the other hand, the experimental materials are the second creation as the "motif", which will have more or less influence on the degree of expression. Finally, in order to eliminate the interference factors of the experiment, the background and color of the experiment pattern are treated in black and white, which will affect the effect of the picture to a certain extent, thus causing deviation to the aesthetic preference of contemporary college students.

With the continuous advancement of modernization, the traditional culture of Hani nationality will inevitably suffer a stronger impact. The continuous cultural output of modern society to Honghe, Jiangcheng and other Hani nationality areas has basically become an important reason for the decline of traditional culture. At the same time, with the decline of Hani nationality's traditional culture, there is also the variation of Hani nationality's traditional culture, which is due to many traditional cultural elements in the In fact, it does not decrease or disappear in daily life, but it is a change that combines with modern culture to adapt itself to the new environment. Fortunately, the state and society have already fully realized this problem and have gone further and further in promoting the traditional culture of ethnic minorities. It is true that the decline and variation of Hani Traditional Culture has become an inevitable phenomenon, and the future trend may become more and more serious. In view of the current situation and development trend of Hani Traditional Culture, we should maintain a positive and optimistic attitude. In the field of design, we can learn excellent Hani Traditional culture, use modern design techniques, and combine with modern culture. To maximize the realization of the most primitive Hani culture, to promote and inherit the Hani Traditional Culture. According to the research direction of this paper, in the future research, we can carry out in-depth research on other classification forms of Hani Traditional costume patterns, and also explore whether the aesthetic preferences of other different groups for Hani costume patterns are consistent with those of contemporary college students, in order to further verify and improve the research results of this paper.

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