The Interpretation of the Culture and Belief of Color in Tibetan Architecture

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ABSTRACT
The style and color of traditional Tibetan architecture have strong plateau characteristics based on its unique geographical environment, climatic characteristics, religious beliefs, and ethnic customs. No matter its colors or forms, its architectural decorations have many connections with religions. It contains rich religious meaning and conveys the Tibetan people's innocence of advocating religion. This article mainly researches the applications and cultural beliefs of Tibetan traditional houses, palaces, and temples' architectural color, hence to gain a deeper understanding of traditional Tibetan architecture.

Keywords: Tibet, architectural color, culture, religious belief

I. INTRODUCTION
Tibet is located on the "roof of the world" and is known as a holy place. It is the closest place to the sun. In the process of developing their own history and culture, the Tibetan has left many material relics with its national characteristics, including the architectural remains. The ancient Tibetan culture is a product of the history of the nations lived in plateau. The remarkable alpine and code climate, unique cultural traditions, and religious beliefs here formed a unique architectural form of Tibet. It has simple and rough shapes, rich and simple colors, as well as strong plateau characteristics. The architecture color of Tibet is bright and rich, with a strong contrast between hue and lightness, but the combination is pure and harmonious. The building itself and the decoration are the carriers of these colors, and the color, together with the Tibetan architectural style, reflects the pure and honest temperament of the Tibetans.

II. THE CULTURAL BACKGROUND OF COLOR IN TIBETAN ARCHITECTURE
Tibetan architecture, as the carrier of the cultural life of the Tibetans, reflects the aesthetic taste and level of the Tibetan people, reflects the strong national characteristics, and carries the cultural expression and belief of the Tibetan people on color.

The use of colors in Tibetan architecture and decorations is not only influenced by the life of the plateau residents and inherited the true colors of nature, but also is deeply influenced by religious beliefs. The worship in religious color is also reflected in the use of color in architectures and decorations. The colors of Tibetan buildings are very rich. The colors of the outer and inner walls, eaves roofs, beams and columns, door and window decorations, murals and sculptures are very different and very distinctive. In general, among the colors outside the building, white, yellow, red and black are the main colors of the traditional Tibetan facade colors. In the basic color composition form, there are certain rules in the use of colors for different types of buildings: the outer walls of houses, manor houses, and palaces are mainly white, some of the important buildings have red borders, the outer walls of temples are mainly yellow, the outer wall of the guardian hall in the temple is covered with red, while a large number of the outer walls of the barn are still white. As a result, the characteristic is that the lower the level of the building, the simpler the use of color, the higher the level of the building, the richer the use of color and the greater the changes.

III. THE CULTURAL CONNOTATION AND WORSHIP OF FAITH IN TIBETAN ARCHITECTURE
The sutras of Tibetan Buddhism believe that everything in the world is included in "Xi", "Zeng", "Huai", and "Fu", which mean gentleness, development, authority and cruelty respectively. The four colors most commonly used in Tibetan
architecture-white, red, yellow, and black are one-to-one matched with these four categories: "Xi" is in accordance with white which means gentleness; "Huai" is matched with red which represents authority; "Zeng" represents development and is colored in yellow and the "Fu" is related to cruelty and colored in black. The red and white colors, as the basic colors in Tibetan architecture, are closely related to the long-term living habits and religious traditions of the Tibetan people. It collectively reflected the religious traditions of Tibet and people's feeling of nature.

In Tibetan culture, white symbolizes holiness, sacredness, tranquility, kindness, justice, sublime, and peace. The Tibetan people's worship of white comes from their taste of the living environment, and from their knowledge in practice. The snow-capped mountains, glaciers, white clouds, sheep, and white tents in the snowy plateau are the living environment of Tibetans. Ghee, milk, felt, and sheepskin are the necessities of their lives. Because of this natural environment, Tibetans tend to closely link themselves to white. In the minds of Tibetans, the towering and white snow mountains are all god mountains. The tall and solemn snow mountains and the danger and horror of the snow disaster have created a sense of awe for white people, and white worship has also taken shape. Dairy products are common food in Tibetans' daily diet. These "white cheese", "milk", and "ghee" and other vegetarian foods such as ravioli, noodles, and fruits constitute a "white feast"; in Tibetan religious rituals, "caseins", "milk", and "ghee" are also used. These three items are called "Three Whites" for worship. The Tibetan people often use "white" as a synonym for kindness. For example, "white things" means doing good deeds or in favor of others, and "white words" represents outspoken fair words, which fully expresses the psychological empowerment of white to a high realm by Tibetan people. In the religious ritual of praying for blessings, people love to keep throwing the tsampa in the air. The white powder falls, and it symbolizes auspiciousness. White stones are placed in the center of the field to symbolize the god of the field, praying for a good harvest, and so on. As the Tibetans shifted from nomadic life to farming and settlement, these ancient customs and traditions of the Tibetan people's understanding of colors are gradually used in architectural decoration. Besides, the worship of white is influenced by religious culture. In Tibetan culture, the world is divided into three levels - heaven, earth, and underground. White is the admiration of the primitive god "Sky God"."White Year God". Thought of Ben has awe for things in white and Tibetan Buddhism also regards white as a sacred symbol, the color of wind. In Buddhism, white is regarded as the Guanyin Bodhisattva. White is the symbol of the deities and has magical power. In addition, Tibet is a region with high ultraviolet radiation. The white building walls can reflect most of the ultraviolet rays and have strong practical functions.

Red is a symbol of fire, embodying the majesty and status. Different reds represent different grades, and the use of earth red, scarlet, vermilion, and orange red on buildings clearly distinguishes the grades. In religious tradition, the color red is used in Tibetan architecture, which comes from the worship of "earth god" - "red year god". It may also relevant to the ancient Ben religion in Tibet. "Benism" is a primitive religion originated from the snowy plateau 1300 years ago. It divided the universe into three realms: "god, man, and ghost". To avoid from ghost invasion, people painted scarlet dye on their faces (Some people in pastoral areas paint black). With the development of the times and the change of beliefs, people no longer paint red on their faces, but they preserved the red in architecture. In Tibetan Buddhism, red represents the space protection god, which means that its dharma power is boundless and it is the most pious belief in heart of Tibetan. In residential buildings, red also represents Manjushri, a symbol of wisdom.

Yellow, a color that symbolizes authority, is a noble color. Yellow also symbolizes the earth. With the introduction of Buddhism, color has also been injected into new life. In the temple building, yellow has become the symbol of Manjushri. The "Gelug Sect" of Tibetan Buddhism is the most influential sect of Tibetan Buddhism. It is commonly known as the "Yellow Sect" and yellow is particularly admired. Yellow is a representative color of this sect and has a high status in Tibetan culture. It is no doubt that the use of yellow is more strict and the yellow is generally used in the decoration of the golden roof of temples and palaces Therefore, the buildings painted yellow have a higher status. The majority of famous ashram in different places is painted yellow, and the most important hall in temples located in different regions is accustomed to paint yellow. For instance, the walls in main hall of Cuoqin in Tashilhunpo, Qiangba Temple of Drepung Monastery and Shannan Minzhulin Temple are all painted yellow. At the same time, yellow, as a connecting line that divides aurora and white, appears in all palace building colors. The colors are staggered, sometimes in dotted shape, sometimes in linear shape, which created a colorful artistic effect, and also conveyed the uniqueness and mystery of Tibetan.

Black symbolizes the guardian deity in Tibetan culture. This color comes from the worship of "underground god"."black year god". In Tibetan culture, the world is divided into three levels - heaven, earth, and underground: the color black corresponds to the underground. In addition, in the religious meaning of Tibetan Buddhism, black can avoid evils and exorcise disasters, and is the representative color of the guardian deity. In order to drive away the ghosts, the
ancestors also painted black on their faces. Because black is related to a series of things that directly threaten people, such as ominous, evil spirits, guardian deity, and door god, it is used to paint the main entrances and exits of the building, such as doors, windows, and window enclosures. Since the introduction of Buddhism, black was also regarded as a Vajrayana. It symbolizes the connection between the interior and exterior of the building. It is guarded by the Vajrayana Bodhisattva, and all evil or bad things are not allowed to enter. The symbolic meaning it represents, in a nutshell, "guarding" is a major meaning. Especially in the temple building, which contains a very strong religious consciousness, the painting of black doors and windows is not only a pure form of aesthetic expression, but also the allegorical meaning of its content has a great effect.

The above four colors are often used extensively on Tibetan architecture, which determines the fundamental color tone of a building. In addition, other colors are often used in architectural decoration, such as blue, green and gold. Gold is a symbol of honor and political and religious authority. For example, the golden dome is only used on palaces, monasteries, and stupas. The five major elements of Tibetan Buddhism, "Earth, Water, Fire, Wind, and Air", correspond to the five colors of yellow, green, red, white, and blue in the world of color. The blue here represents the sky and green represents the rivers and lakes. At the same time, Tibetan Buddhism gives these five colors the meaning of "five-colored masters", that is, five-party Buddha or five kinds of wisdom.

IV. APPLICATION OF COLOR IN TRADITIONAL TIBETAN ARCHITECTURE

A. Monastic architecture

The temple building itself has a relatively high status in Tibetan architecture. The painting colors of walls are mainly white, earth red, black, earth yellow, and gold. Among them, white is the main color, and its usage is prevalent. The use of red in the wall is more stringent, it is mainly used in temple buildings, such as the guarding hall, the pagoda, etc. In addition, the red is also used in external walls of some temples. Yellow is merely used in temples, the official residence of the living Buddha, "Larang", and the residence of the eminent monk. Only this type of building is eligible to "wear a yellow coat." Black is mainly used around doors and windows.

In Tibetan history, the ochre rimmed wall is a "special treatment" for some specific buildings, and it is also an important means of decorating exterior wall. Its calm and steady ochre color contrasts with the main color of the wall. The use of the Bianma Wall has strict grade requirements. It can only be used in the temples of the "Buddha, Dharma, and Monk", the palaces of the Dalai Lama, Diba, and monks, and the buildings of the noble houses of privileged classes in the secular world. The Bianma wall is piled with Chinese tamarisk branches, the cross-sections of the branches are facing outwards, and individual, small tamarisk branches are concatenated to form a large ochre wall with bumps and waves and light and shadow. When viewed from afar, the soft, magenta-shaped horsehair pads and material mainly composed by stone are finely contrast with each other. As shown from "Fig. 1", as a symbol of honor, gold is mainly used in the architectural decoration of palaces, monasteries, and aristocratic estates. Gold is mainly used in the roof of the temple's main halls, Buddhist temples, and royal palaces. The golden tile roof on the top of the stupa is commonly known as the golden roof, which is a special metal roof tile. It is cast with copper and plated with real gold. It not only plays the role of roof tiles, but it is mainly used as a high-end luxury architectural decoration. In addition to the golden crown decoration, gold is used to decorat aquarium, Buddhist stone pillar and Xianglin Falun in other palaces, temples, and aristocratic mansions to reflect the distinguished status. Gold is also used on the gold-plated decorations "Eight Ends" and "Seven Political Treasures" on Bianma walls, which also reflects a strict hierarchy.

The color decoration of the window and door of the temple is generally painted, and black is mainly used. The coating of window and door fences is basically painted as color-ribbons. Various colored fabrics on doors and windows are also an important part of color decoration. Large shade fabrics are usually hung on the hall or on the independent porch. The lower side is fixed on the porch post. The colors of these fabrics are extremely bright and strong, such as black, gray, red, yellow, white and etc. The material for weaving black curtains is mainly yak hair. On some temple roofs, this shade fabric even covers the entire facade of the
building, which help to block ultraviolet rays and insulate heat. (see "Fig. 2")

Fig. 2. Black shading cow felt in the Potala Palace.

The colors of the walls in the yard and the interior of the building are extremely bright, and the chroma is very high. Warm colors such as red, vermillion, orange, orange, and medium yellow are mostly used in the courtyard and indoor walls. Cooler colors, such as ultramarine, grass green, and turmeric, are generally used for ceiling decoration; all bright, full-hue colors, such as red, yellow, green, blue, black, white, and gold, are used for decorative painting.

The color classification of the inner walls of palaces and temples is well-defined. The highest-grade buildings use the most beautiful warm colors, such as red is the first choice, then is vermilion, the third is orange, the fourth is pure yellow, and the fifth is beige and white, with the lowest level. The color used in the wall depends on the function of the building and the status of users. The higher the status is, the brighter and warmer the color will be, and vice versa.

The interior of Tibetan temple buildings is dim. Generally, the interior space of the hallway of the vestibule is directly connected to the roof, and the height gap of the side skylight is used for lighting. The light beam is projected on the columns, beams and a large number of brocade Thangkas, Buddhist stone pillars and prayer flags, so that the most luxurious and gorgeous colors of interior architectural decoration and textiles are fully displayed. There is no light on the top of the Buddha Hall. Relying on the high side light cast by the side skylight of the hall and hundreds of weak butter lamps lit in front of the hall, the back of the Buddha statue looks dark and deep. This processing method creates a strange atmosphere, which makes the temple far-reaching, gorgeous, majestic and mysterious.

Fig. 3. Looking to the red and white Houses of Potala Palace.

Fig. 4. Roof color of Potala Palace.

For example, the Potala Palace, the representative of the Tibetan palace, is as simple and concise as possible in the color decoration of the main building. The three contrasting colors of red, white, and yellow stand out against the blue-washed sky, which looks colorful magnificent. The Red House is thoroughly dark ochre red; the White House is lined with black doors and windows on the white wall, and the ochre side wall is bright and strong. There are two main ways to paint the White House's exterior wall: one is to paint the entire wall in white; the other is to pour the lime paint from the top and spill it to white. This frequent use of white and red among walls reflects the elegance and mystery peculiar to religious architecture on the plateau (as shown in "Fig. 3"). As the location increased, the black window holes on the building wall changed from hollow to solid, from small to large, and the decoration of the cornice corners became increasingly complicated. The roof of the Potala official is a flat roof, but at the center of gravity of the building complex, the distilling gold "golden roof" on these flat roofs is dazzling with its metallic nature. The color of the roof of the temple building is also very rich. They are the colors of the decorative elements on the roof (as shown on "Fig. 4"). These decorative components include yellow-colored buildings, gold roofs, black cow hair buildings, yellow or red cloth-based buildings, especially various yellow metal decorations are magnificent and splendid under the strong light of the plateau.
B. Residential buildings

The features of Tibetan dwellings are clear and the differences between north and south are obvious. Buildings in Lhasa, Shannan, and Xigaze are all traditional flat roof styles, usually one or two floors, and the exterior of the buildings is mostly decorated in black, white and red. The exterior walls of ordinary residential houses are usually whitewashed, and tents in pastoral areas are mostly white. The white walls of traditional buildings are painted with white ash and ghee. Every year at the beginning of winter, Tibetans paint their houses with white ash at chosen auspicious days. The exterior walls of Tibetan building are narrow at the top and narrow at the bottom, forming a small slope. When people stand on the roof or wall and pour buckets filled with white paint from top to bottom, the scene is extremely bold and rough. From the scientific aspect, white resists strong ultraviolet radiation on the plateau. Subjective and objective factors determine that traditional Tibetan architecture prefers to use white since the ancient times until now. The color of the residential buildings should be as simple and concise as possible to set off the main buildings. The overall features of residential buildings are that the doors are low, windows are small, the lower layers are tall, there are many layers and the facade decoration is concise. The roofs of residential buildings are generally only equipped with simple five-color prayer flags. For the exterior wall decoration, most residential buildings are not decorated as some use manual painting to decorate the wall with curved texture, and some use warding off evil totem to decorate.

The doors and windows are all painted black, with the moon in the middle above painted in white and the sun painted in earth red. Traditional houses values the decoration of the door. The gate of the large house is composed of a door frame, a door header and a bucket arch. The door header is connected to the bucket arch, which is painted in three colors of blue, red and green, and a gold spell is printed on the door header. A convex shape is formed above the door header, with about a square foot of space left in the middle. The frame is made of wood and inlaid with glass as a shrine, and it enshrines the owner's favorite statue or artifact. Doors of residential houses are painted with white moon, red sun, lucky patterns or "Yongzhong" ("Fig. 5"); higher-level buildings often wrap two or three strips of iron or copper on the door panels, that is, "Kanye". The door frame hollow gold, or golden pattern on black background, has become the focus of the color decoration of the door panel. Some mascots like scorpions or others are line-shaped and drawn with ink or black minerals, with a few strokes, which are lifelike. In some places, yak horns are also placed above the door header to ward off evil. The "Tajue" decoration on the roof is one of the most ethnic decorations of Tibetan houses. The size of the opening of the window is generally small, the height of the window is relevant low, and the colors of the window edges are mainly yellow, red, white, and green. There are many decorations on the window, mainly are paintings, and some are carvings. The common decoration on the window lintel is two-layer short lintel. The main color of the upper short lintel is dark red, the lower layer is green, and the green short lintel is painted on the surface. (see “Fig. 6")

Fig. 5. Common style of door of residential building.

Fig. 6. Door head carvings of Linchi residential building.

The rich religious color is the most obvious sign that Tibetan dwellings are different from other ethnic dwellings. On other buildings that can't be decorated with the ochre edging wall, the exterior wall is decorated with ribbons. The choice of color is related to the beliefs and culture of the locals. For example, in the place where the "Three Fanites" are believed, black and red bands are painted on the white exterior wall to show the dedication to the three Bodhisattva – Avalokitesvara (white), Manjushri (red), and Vajrayana (black). The white symbolizing Avalokitesvara Bodhisattva represents compassion and kindness, the red symbolizing Manjushri Bodhisattva represents wisdom, and the black symbolizing Vajrayana Bodhisattva symbolizes safeguard and protection from evil spirits. In Sakya where regions are affected by the Sakya, the dark blue-gray walls are decorated with white and red bands.
The Nyingchi area is located in the southern part of the Qinghai-Tibet Plateau, and its economy is relatively developed. The vegetation is abundant, the climate is humid, the rainfall is plentiful and the oxygen is sufficient. Therefore, the residential housing projects built by the government after 2008 have adopted traditional Tibetan house styles with pitched roof. Generally, the exterior wall is paved with gray or white tiles, retaining black window enclosures and traditional decorative window lintel. The window is larger than the traditional style. Although it is made of modern aluminum alloy, the iron window with traditional auspicious patterns will be added to the exterior side of the window. The common decoration on the window lintel is two-layer short lintel. The main color of the upper short lintel is dark red, the lower layer is green, and the green short lintel is decorated with colored drawings. The window beam is mainly blue and decorated with colored drawings. The most distinctive feature is the various colored sloped roofs. They are made of iron sheet, in red, blue, purple, green which are very colorful and have extremely high purity. When setting off against the blue sky and the green hills, the color looks especially vivid, bright and eye-catching. ("See Fig. 7")

Fig. 7. Dwellings in Linzhi Jieba Village.

V. CONCLUSION

The color culture embodied in Tibetan traditional architecture is of great significance today. In general, black, white, earth red, and ochre with low color saturation and strong brightness contrast are used for exterior walls; colors with lower saturation and cooler colors, such as ultramarine, grass green, and turmeric are used for ceilings; high-intensified, warm-colored red, vermilion, orange, yellow, and medium yellow are used in the courtyard and indoor walls; gorgeous and rich red, yellow, blue, green, black, white, and gold are used for painted decoration. The colors of palace buildings are exquisite and magnificent, the colors of temple buildings are solemn and generous, the colors of noble buildings pursue riches and prominent, and the colors of ordinary houses are relatively simple. Together, they form a colorful and layered architectural color system for Tibetan traditional buildings, enabling Tibetan architectural groups to achieve perfect harmony and unity in a variety of changes. Expressions like contrast, material, and interspersing, highlighting, bold use of colors are also one of the modern building processing methods. The rich symbolic meaning and belief tradition in the color is the cultural accumulation of the Tibetan nation for a long time.

References