



FISH MOTIF PATTERNS: SYSTEMATIC CLASSIFICATION AND APPLICATION IN THE MODERN DESIGN

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Abstract

The fish motif is one of the oldest traditional decorative designs used in China and has a lengthy history. Fish patterns must have a distinctive form and have widespread cultural meanings to be passed down and change through time. A fish pattern is a form of decorative design that draws its inspiration from the image of a fish. It was eventually discovered to be jewellery made of fish bones, dating back to the Paleolithic era when it was first found. A wide variety of fish forms, including single fish, double fish, conjoined fish, variant fish, mermaids, fish and birds, variable fish, and fish and objects, were then produced and transformed in the *Yangshao* and *Hemudu* civilizations. According to the circumstances, various fish shapes served a range of purposes. Design is significantly impacted by the fact that fish patterns are always changing and evolving as human society advances. Modern material civilization is growing quickly, and people's views have undergone significant change as a result of the advent of the new age and the advancement of science and technology. The fish's design must adhere to current fashion trends to maintain its unique attractiveness. Designers must create the fish pattern corresponding to a design style with Chinese characteristics to do this, fusing historical significance with modern concepts. This approach could give fish designs more flexibility to develop so they can meet contemporary expectations.



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1. Introduction

A motif is a concept, design, pattern, or idea that frequently occurs in works of art. A motif in textile art is a little component of a much bigger work. Although motifs can be any size, they are frequently all the same size in a single work. Although the designs and stitches that make up a motif may vary greatly, there is usually some aspect that links them, such as texture, stitch pattern, or colour, that improves the aesthetic appeal of the finished work. A pattern is a theme of recurring events or objects, sometimes referred to as a collection of components. These elements recur predictably again and over again. If the results contain sufficient features to allow for the inference of the underlying pattern, in which case the results are said to exhibit the unique pattern, it can be used as a template or model to construct things or sections of things. Basic patterns that rely on repetition and periodicity (Moyle & Moyle, 1991).

The creation of motifs is an important and continuing activity in the field of textile design. This research discusses the development of fish-inspired motifs in modern design. These well-known motifs may be used to create the design, and the best designs in the best locations can be applied to saris in the finest colour schemes. A motif in art and iconography is a composition or a recurring element that is integrated to create a larger composition (Kari et al., 2019). The usage of motifs, which may take many various forms, is considered to be an essential component in designing. Additionally, they are limited to one appearance per work. The motifs used in a certain piece are all the same size, even though motifs can be of any size. Each design has a history, an interpretation, and a variety of forms and directions, much like the cloth itself.

Patterns and motifs that repeatedly interact with one another have been created to produce aesthetic appeal and beauty. They use clothing, jewellery, armour, fabrics, wallpaper, and furniture to create ceramics, paintings, sculptures, and buildings (Kari et al., 2019). When analysing a pattern, it's important to consider its design in light of the cultural and societal context in which it was created as well as the object it was used to adorn. Patterned objects have a negative impact on the aesthetic attractiveness of material technology, examining the design of a pattern in light of the cultural and social context, as well as the object it is used to embellish. Patterned objects have a negative impact on the aesthetic attractiveness of material technology. People's surroundings mirror how they see and understand the world around them through patterns (Song & Li, 2019).

A specific method of thinking gave rise to some patterns with recurrent themes or a combination of variants and abstractions. On exterior or internal structures or things, especially close to the human body like undergarments or pocket linings, patterns can be found on or below surfaces and are meant to be visible. Fashion plays a significant role in the look and consequences of patterns. Additionally, patterns have transformed design to reflect modernity as a multidimensional, culturally rich aesthetic force in art and architecture. Painted ceramic tiles can also display patterns as part of the overall design, potentially arranged in grids to produce additional patterns (Bunimovitz & Lederman, 2010). There may be a significant connection between particular patterns and the material's structure in woven textiles, stone or brick walls, and other materials.

A fish pattern is a type of ornamental pattern that is made possible by the representation of fish. It was initially discovered in the Paleolithic period and was later shown to be jewellery made of fish

bones. The evolution and modification of fish patterns led to the creation of a wide range of fish species in Yangshao culture and Hemudu culture, including single fish, double fish, conjoined fish, variant fish, mermaids, fish and birds, various fish, and fish and things. Aside from that, distinct fish designs had varied functions in diverse situations (Kari et al., 2019). Design is significantly impacted by the fact that fish patterns are always changing and evolving as human society advances. The aesthetic value and cultural importance discovered in fish patterns may not only inspire new design ideas for some design disciplines, personalize and humanize this method, but also raise the Chinese design movement to a larger and more important place in the international arena. Modern design has become utilitarian and sanitized as a result of society's utilitarianism and the loss of national culture.

Fashion typically recalls the past and is deeply steeped in tradition. Designers frequently draw influence from history. When employed in contemporary fashion design, traditional motif design benefits from the specific concepts of collection and garment style as well as fabric arrangement (Moniruzzaman et al., 2021). To ensure the success of the design, they must offer certain costume styles, modelling, structural dealing, and theme. To make their collection more alluring, the designer, in addition to using their standard theme design application, also employs a few collar changes, such as vivid spot colours, patterns, or decorative elements (Moniruzzaman et al., 2021).

2. Cultural Significance of the Fish Motif Patterns

The pronunciation of the Chinese character for “fish,” which is pronounced “Y,” is the same as another character meaning “to be in excess of.” As a result, the fish pattern has historically been linked to happiness and wealth. The pattern is also regarded as a fertility charm because fish lay several eggs. Therefore, the fish motif patterns exhibit various cultural connotations in the Chinese context.

2.1. Worship of Reproduction

Since the Shang and Zhou eras, respect for ancestors and descendants has been seen as an important part of traditional Chinese society. It also happens in other societies, such as those in India, Bhutan, Nepal, etc., in addition to Chinese society. In actuality, it has grown to become a well-liked religion. Engels previously claimed that materialism holds that the production and reproduction of direct life ultimately determine the course of history. The actual manufacturing, however, may be split into two sections. First, there is the production of means of sustenance, which includes the provision of a place to live, food, clothes, and the instruments needed to make these things; second, there is the production of people themselves, which includes species reproduction. The forefathers' primary worry in the past was making sure they had adequate food and clothes. They resided along the river during those tough times. The unrestricted capacity of fish to breathe in the water came to represent how much people appreciated nature at the same time as they organically evolved into a staple diet. Their primary goals at that time were the ability to reproduce and the wealth of clans, in addition to meeting their necessities. In prehistoric culture, the matrilineal clan served as the primary unit of social structure. The ancient ancestors did not

have a clear understanding of gender. The clan's ability to reproduce and thrive could only be guaranteed by the female reproductive system. Additionally, Hanafin (2001) observed that the form of the male and female genitalia symbolizes and honours the idea of the universal ability for reproduction in nature.

2.2. Concept of Prosperity

People's attitudes on the veneration of reproductive organs slowly began to shift as society and history experienced ongoing baptism. The religion of reproduction developed into a way of viewing life that was more in line with the idea of auspiciousness. Fish patterns eventually evolved into a type of support for people's spiritual practices. As people learned the meaning of the auspiciousness of fish designs, they also began to make fish patterns that were combined with other decorations that also symbolized auspiciousness, such as birds, flowers, trees, and so on. Using design strategies like homophonic puns, pictographic symbols, and their combination, people were able to express their hopes for success. Fish and lotus designs are commonly combined in modern design, and each has a unique connotation depending on the situation. The lotus design, for instance, might work better when coupled with fish designs as a symbol of reproductive devotion. In actuality, people utilized the Eastern Han Dynasty poem '*Jiangnan*' to illustrate the exquisite love between men and women by equating lotus leaves with ladies and fish with men. These pairs are still present in wedding-related situations and the associated items. For instance, the lotus and fish pattern combination is used in paper-cut, window design, and pottery to represent fruitful years. The image represents a continuous wealthy life that serves as an exorcism, in contrast to the implicit meaning of beautiful love, and contrasts this with the implied meaning of beautiful love. Carp jumps over the dragon gate is a metaphor that usually refers to those who could achieve instant fame after putting in a lot of effort. It mixes fish and dragon imagery. These pictures often take the shape of sculptures and are commonly used in crafts and public artwork.

3. Fish pattern development and pattern evolution

Throughout their vast history, fish designs have undergone ongoing growth and change, generating a rich and unique cultural meaning. Fish patterns are always changing and evolving as different eras pass (Moyle & Moyle, 1991). The prehistoric ancestors revered fish, a sort of natural organism, for its power to reproduce and live because they were in awe of nature at the time. At the time, the fish patterns were simple yet mysterious. Slavery culture began to form throughout the Xia, Shang, and Zhou dynasties. It reached its zenith during the Western Zhou dynasty when sacrificial vessels were frequently decorated with fish-like designs. It was thought that corpses with jade fish or jade cicadas in the mouth would be imperishable and the soul may regenerate during the Shang Dynasty (Song & Li, 2019). Animal-themed jade sculptures were also quite popular during this period. As a result, fish-shaped jade sculptures were frequently produced, and their spiritual beauty as well as the simplicity and purity of earlier times were retained (Salis et al., 2019). The use of symbolic themes began to dominate throughout the Han Dynasty. References

to exorcism, flying immortals holding fish, phoenixes, and other images that represented the longing for a more fulfilling existence were among the so-called symbolic patterns (Song & Li, 2019). Many Han Dynasty fish designs were subtle and elegant (Salis et al., 2019). Tang tri-coloured ceramics, a response to the Tang Dynasty, is notable for their distinctive historical characteristics, lively appearance, and extravagant colours (Song & Li, 2019). A typical example of Tang ceramics is the multi-colored double-fish pitcher, which features exquisite fish motifs. Ceramics underwent fast progress in the Song and Yuan eras, and at the same time, designs of fish and algae were mixed to depict scenarios in which the fish glides and the alga swings. These fish designs are quite gorgeous and fluid. With the help of its auspicious connotations, fish patterns during the succeeding Ming and Qing dynasties gradually broke free from the confines of the feudal ethical code and gained favour among the populace. Since they could represent both traditional rites and individual livelihoods as well as promise a lucky omen, fish images were also commonly utilized in the construction of lamps, fans, and needlework (Yin et al., 2020).

Fish patterns' appearance and fashion continue to change as a result of continuing societal replacement. People first designed fish designs from the physical traits that this species was born with. As a consequence, these realistic fish drawings are colorful and convincing (Yin et al., 2020). Fish designs have been distilled through time and further honed outside of their initial context based on designers' studies and findings (Song & Li, 2019). As a consequence, the distinctive geometric fish pattern made up of points, lines, and surfaces took the place of the fish's original natural design; in fact, the latter looked to have a more dynamic and energetic fluidity than the former (Song & Li, 2019).

Fish remains from archaeological sites have the potential to give a wealth of information about societal issues in addition to the more traditional goals of subsistence studies relating to procurement strategies and seasonality (Yin et al., 2020). In many religious and philosophical traditions across the world, fish have been and continue to be a major symbol (Song & Li, 2019). The usage of fish as symbols in Chinese culture, both historically and currently, has been hugely influential.

4. Utilization of the fish motif in the modern design

4.1. Architectural design

After much "fish" experimenting with structures, sculptures, jewelry, and furniture. This well-known architect has used this recurring pattern as his compass in all of his architectural endeavors (Gehry, 1996). As Gehry's formal language developed, he began to create asymmetrical architecture, made unusual but inventive use of materials, frequently gained an unfinished façade, and was frequently lovely with a distinctive character (Gehry, 1975). Gehry felt more creative freedom and the potential to alter the laws of the architectural realm since he viewed architecture as art (Byadgi & Naik, 2010). The fish served as the artist's silent muse for his formal architectural language, which considerably contributed to his professional success as one of today's most renowned and productive architects.

Along with his work in architecture, Gehry also regularly worked with sculpture and design, using the same sensibility and utilizing cutting-edge materials (Gehry, 1975). He used corrugated cardboard for his *Easy Edges* (1969–1973) and *Experimental Edges* (1979–1982) projects, and bentwood for his Knoll (1989–1993) furniture designs. Formica purchased his first Fish Lamps in 1983 made of Colour-Core, a brand-new plastic laminate at the time (Kaufman, 2012). This broken cover controls the light source within, and the material's color variations are what Gehry used to cover metal frames to represent scales (Gehry, 1975). The series was more actively continued in 2012. These sculpture ideas demonstrate Gehry's lifelong interest in fish, which has developed into a recurrent topic in his works of art (Kaufman, 2012). In 1986, he initially attached one to a building in Kobe. In 1986, he also created a glass duplicate in Minneapolis. And in 1992, he created a huge metal fish sculpture in Barcelona. Gehry has occasionally asserted that his early encounters with his grandmother's carp inspired him. He reimaged the fish, a constantly evolving form, as the curves of the Experience Music Project (now the Museum of Pop Culture) in Seattle in 2000, the Marqués Riscal Vineyard Hotel in Elciego in 2006, and the twists of the Jay Pritzker Pavilion in Chicago in 2004.

Decorations or visual motifs can be combined and repeated in art and architecture to create patterns that are intended to have a certain impact on the observer (Kaufman, 2012). While keeping their cultural significance, classic motifs, and patterns are now living a new life as symbols of the modern, inventive world. Motifs and patterns are crucial components of any surface design from a designer's perspective, and they may be combined to create stunning designs.

Since ancient times, the fish design has been employed extensively in architecture, serving as a fire and disaster mitigation tool. So far, there are still a lot of fish-shaped structures visible. Fish motifs are used in the design of the "Linda sea fish square" in Beijing and the "puffer fish-shaped exhibition hall" in Jiangsu Yangzhong. The fluid curve of fish designs and the cultural significance full of energy were utilized in the architectural design by Frank Gehry, a renowned deconstruction design master, with remarkable success (Kaufman, 2012). The most traditional of them all is the Guggenheim Museum in Bilbao. Some fish-like hyperboloids that are coated with multiple titanium plates on the facade make up the entire look. From a distance, it resembles a fish scale that is shimmering in the sunlight and wonderfully blending into the river's vibrant surroundings.

4.2. Packaging design

Products are packaged to keep them safe from different pollutants and extend their shelf lives (Coles et al., 2003; Marsh & Bugusu, 2007). Additionally, the packaging has the power to draw customers, boosting sales and broadening the market (Orth & Malkewitz, 2008). The design pays close attention to the design tenet "words must be deliberate; meanings shall be auspicious." The fish pattern, a unique design feature, is one of the symbols of Chinese traditional auspiciousness and has some positive connotations. The auspicious meaning of the celebration, happy love, and blessing to children symbolized by fish motifs are especially prevalent in the package design of wedding-related items. For instance, the packaging of wedding candy, feast, and tea all have fish motifs.

4.3. Product design

Fish designs are widely sought after by product designers because of their supple and dynamic curves. The curve of the fish pattern is used in creating the shape of vehicles and makes it easier for them to continually be refined and evolved into wedge shapes at this time. This reduces air resistance and increases the speed of the vehicle. People frequently encounter fish-shaped objects in their daily lives, such as combs, pens, and door handles, which are more suited to people's holding habits (Yin et al., 2020). They are more vibrant and engaging from an aesthetic standpoint, realizing the balance and unification of utility and beauty, in addition to being more convenient. The painters decorate the exterior walls of secular buildings, like kings' tombs and palaces, with fish motifs. Stucco plastering was used to create this design. Since depicting live things was forbidden by Islamic teachings, fish and other animal themes are especially rare in religious architecture. In this instance, the geometrical and floral motifs predominated in the stucco rosettes, medallions, panels, bands, spandrels, etc. (Yin et al., 2020).

5. The current design process for a fish motif

5.1. Extracting meaning from the shape

Since society and people's opinions have been constantly changing, the worship of fish patterns for reproduction has been less prevalent. But it didn't completely disappear. The notion of auspicious implication began to take shape as a consequence, allowing fish patterns to continue to grow more harmonically. With the help of the method employed by professionals to infer meaning from shapes, fish patterns can be directly incorporated into the current design or abstractly modified. Thus, fish patterns may better convey the auspicious and desired ambitions they embody. Various design industries can use this technique. Consider Cybex, a high-end newborn and childcare company in Germany, which included bells with fish motifs in the "shape," "meaning," and "spirit" of its products' designs (Yin et al., 2020). Designers use appliqué and embroidery techniques to portray these fish designs in their intended shape on the silver cloth of baby carriages. As a result, the design of baby carriages incorporates in a highly imaginative way the optimism and longing for a better life portrayed in these fish motifs. Furthermore, it is possible to convey to a greater audience the cultural connotations of auspiciousness, fitness, and vitality.

5.2. Deconstruction

To build a solid foundation for the next time, it is required to modify the fish pattern. Deconstructing past fish drawings and then assembling the fragments would result in a new, important creation. The dynamic hyperbola, exquisite posture, unique scales, dorsal and caudal fins, and other defining characteristics of fish designs may be recovered through deconstruction, a technique for retrieving the specific cultural implications of fish patterns. The fact that the rebuilt image is no longer genuine but is instead presented abstractly is crucial. After a brand-new image is dissected, fish patterns could emerge. On the one hand, it is possible to maintain the cultural significance of fish designs. Deconstruction, on the other hand, promotes the larger and more harmonious extension of the fish pattern while also better sublimating the cultural significance of fish patterns.

5.3. Apply the traditional to the modern design

Instead of strictly adhering to the same principles, creating fish patterns in the modern day requires uniqueness. The fish pattern needs to be redone utilizing cutting-edge methods, supplies, and hues to create a fusion of tradition and contemporary. Keeping the look of older works while also embracing current design is what is referred to as “applying the old to the new” (Yin et al., 2020). Much of the Chinese architecture has a striking and sombre aesthetic impact. Glass components may be used with the fish theme in this design approach. Fish have a vivid, lively, and dynamic sense of sight. By minimizing the heaviness that the huge appearance would otherwise convey and by highlighting brightness and elegance, the combination of flexible appearance and clear glass improves the architectural image. In terms of colour choice, people are no longer limited by the natural hue of fish designs and have the option of blending traditional hues with modern ones (Yin et al., 2020). Modern technology would allow for these new hues to be more layered and varied.

6. Conclusion

In terms of their cultural significance, fish patterns have a long history of evolution and growth. Due to their cultural significance and artistic worth, they demand long-term development. Contemporary material civilization is expanding rapidly, and ideas among people have changed significantly as a result of the coming of the new era and the development of science and technology. The fish's design must adhere to current fashion trends to keep its unique attractiveness. Designers must create the fish pattern corresponding to a Chinese design style to achieve this, fusing historical significance with modern concepts. To meet the demands of the present, fish designs may have more room to develop as a result of this strategy.

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