GESTALT THEORY IN CHINESE CUT-PAPER — AN OLD FORM WITH A NEW PERSPECTIVE

Xinran Hu

The Tradition of "cut-paper" in China has a history of at least 1500 years. Its originators, who were mostly peasant women, used simple, mundane elements—scissors, knives, and paper—to create the most astonishing shapes. And they did all this on top of their commitment to strenuous farm labor.

Today, Chinese peasants continue to use traditional cut-paper art to commemorate weddings, birthdays, funerals, and other common social events. They also use it during Chinese New Year, to decorate windows, doors, ceilings, and walls; to create embroidery templates for clothing, tablecloths, and curtains; and to make stenciled surface patterns in the embellishment of pottery.

Because cut-paper is so widely applicable to so many situations, it has the feeling of being direct, vigorous, unpretentious—and as fresh and honest as the soil. At times, it seems ironic then that, in the past twenty to thirty years, art critics and professional artists have begun to show great interest in examples of cut-paper (as if they were artistic masterworks), although they were created by uneducated Chinese folk artists. As a result, the work of these craftswomen, who were all but unknown until lately, is increasingly admired, exhibited and written about in China. They even travel overseas to speak as expert practitioners of cut-paper to Western audiences through demonstrations and exhibits.

How is it that these rustic peasants can intuitively create cut-paper of such intricacy that their work is so respected by highly-trained Chinese artists, as well as by Western audiences who come from such a different background and who know so little about the original of this ancient craft? For a long time, I myself had no way to answer this question—until I began to read about the Western school of psychology called Gestalt theory.

In the early twentieth century, three German psychologists named Max Wertheimer (1880-1943), Wolfgang Kohler (1887-1967), and Kurt Koffka (1886-1941) developed the Gestalt principles of visual perception to describe how human beings see the relations among visual elements. In 1923, Wertheimer published his research results in "Principles of Perceptual Organization," a paper in which he described certain "perceptual grouping principles," including similarity, proximity, continuation, and closure.

The principle of similarity anticipates that, whenever we experience a "field of vision," its components will tend to be seen as "belonging together" to the extent that they are similar in shape, size, color, direction, and other visual attributes.

The principle of proximity might also be referred to as the principle of nearness, because, everything else being equal, "grouping occurs on the basis of small distance."

Continuation occurs when "the group with a direction" leads our eyes "beyond a straight line or curve." Because we follow direction and look for sequence, it is the perceptual equivalent of physical inertia.

The principle of closure predicts that we will do our best to see an incomplete shape as complete (in the very act of seeing it); to the extent that we can, we will see things as stable and balanced.

Today, the theories of the Gestalt psychologists are commonly alluded to in art and design education. After I learned about Gestalt theory, as a native of China, I began to look at cut-paper with a new attitude, because I quickly realized that the practice of cut-paper exemplifies Gestalt principles, and, while the uneducated originators of Chinese cut-paper were not explicitly concerned with perceptual principles, they nonetheless applied them at a less than conscious level.

It is my conclusion that Western psychologists (and artists) and Chinese folk artists share many of the same understandings about human perception and employ the very same grammar—the Gestalt principles of perceptual organization—in visual communications. This explains why visual form can so easily be understood across cultures, whereas written languages cannot.

In Chinese cut-paper, creators draw by taking things away—not by adding. To follow, the creators of cut-paper must think (and see) in reverse, and must manage space efficiently. It is by two opposite cutting methods—Yin cutting and Yang cutting—that skillful Chinese folk artists create multilayered figure-ground relationships. In Yin cutting, the artist uses the scissors in the manner of a spade—cutting figures out, so that cutout spaces (or empty shapes) serve as the figure. By contrast, in Yang cutting, the creator uses the scissors like a pen—leaving a figure on paper, so that the cutout spaces work inversely as the ground.

Fig. 1   Fig. 2   Fig. 3

For example, Dog [Fig. 1] is a Yin-cutting; its thick fur is illustrated by Yin-cut serrated curves. We see cutout spaces—empty shapes—as figure; the remaining ground reflects the figure. Dragon [Fig. 2] is a Yang-cutting; its curved bodyline indicates motion. In Yang cutting, all figures (lines and shapes) must connect to one another directly or indirectly; otherwise, the cut-paper will fall into parts. Thus, in Yang-cut paper, remaining lines constitute figure, with ground cut away. Most cut-paper, however, makes combined use of these two cutting methods. For instance, in Sheep [Fig. 3], the decorative flower on the sheep's body and curves on the horn are Yin cut; both function as figure. The sheep's body and horn, however, come from Yang cutting and serve as ground.

This combination of Yin cutting and Yang cutting creates visual hierarchy, a multilayered figure-ground relationship. Naturally, multiple layers add depth to cut-paper, which begins as just one layer of paper in a single color. We know that figure is normally smaller than ground; therefore, in Yin cutting, the cutout area (figure) is thinner and smaller than the area left (ground); in contrast, in Yang cutting, the remaining

area (figure) is thinner and smaller than the cutout area (ground). As a result, Yin cutting, with more paper remaining, looks heavier than Yang cutting, with less paper left (more empty space inside).

Fig. 4

Fig. 5

Fig. 6

For instance, when we compare two Chinese cabbage pieces: the left one with Yin-cut leaves [Fig. 4] and the right one with Yang-cut leaves [Fig. 5]. The cutout spaces in the Yin-cutting are smaller than in the Yang-cutting, so that the Yin-cutting looks thicker and heavier than the Yang. Thus, in a single piece, the contrast between Yin cutting and Yang cutting may create a figure-ground relationship. Another example, Mandarin Duck [Fig. 6], features Yin cuts that lie back; while Yang cuts appear to come forward. The Yin-cut pattern on the tail, head, and lotus leaf appears to fall back; while the Yang-cut decorative flowers and the pair of small mandarin ducks on the wing stand out.

Indeed, in Mandarin Duck, we see four layers cut from bottom to top—a shape may serve as a figure in one layer and as ground in another. In the bottom layer, the duck with beak, head, wing and tail, and lotus leaf appear from Yang cutting. In the second layer, the duck's feathers and body pattern come from Yin cutting. Cutout lines and shapes constitute figure, and the whole duck body is ground. In the third layer—Yang cutting again—we add decorative flowers and a pair of small mandarin ducks as figure, and the cutout wing is ground. Then the fourth layer —Yin cutting again— reveals a pair of small ducks as ground; their feathers and wings represent figure. The wing of the large duck serves as figure for the second layer and, at same time, as ground for the third layer. The small mandarin ducks are figure for the third layer, but ground for the fourth layer. Thus, in limited space, with multiple layers in the figure-ground relationship, the artist transforms paper into a complex design.

In Chinese cut-paper, it is normal to employ not just one, but several Gestalt principles in a single work. In Pumpkin and Butterfly [Fig. 7], although the bottom part of the pumpkin remains open, we still see the pumpkin as a whole—we close the gap without even realizing it. Besides the use of closure in this piece, we also find effective use of similarity and continuation. Yang-cut curved lines represent tendrils resembling the Yin-cut curved lines on the butterfly; the Yang-cut dot on top of the pumpkin and the left tendril share shape and size with the Yin-cut dot in the center of flower; a

Fig. 7

Yin-cut rib line on the left leaf closes the circle made by Yang-cut lines of pumpkin, petioles, tendrils. Here we see how a folk artist employs Gestalt principles to group cutout space and leftover space into a single harmonic composition.
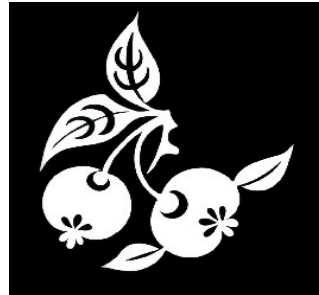

Fig. 8

Fig. 9

Lotus [Fig. 8] is a good equivalent to Wertheimer's original example of the similarity principle. Nine petals fall into two groups: four petals share one shape and five share another shape. Typically we don't group two different-shaped petals as one unit even though they sit side by side; visually, we divide them into the two groups. Folk artists used this gesture to add visual variation to a flat, two-dimensional work by suggesting a three-dimensional flower with inside and outside layers of petals.

More interesting, in Fruit [Fig. 9], the artist uses the similarity principle, along with combinations of Yin- and Yang-cutting, to create strong, three-dimensional, inside and outside feelings. Because of similarity, we connect the inside seeds with the outside blossom; and because the seeds come from Yin cutting and the blossom from Yang cutting, we realize they are not at the same level—but seeds inside and blossom outside. It is a strong example of a simple, smart device that is used in cut-paper to create a three-dimensional feeling.

Fig. 10

Fig. 11

Quail [Fig. 10] exemplifies how we respond when similarity and proximity occur together. When we look at the pattern, we spontaneously group two lines as one unit although they appear in different styles. We do not read the four plain lines as one group and another four serrated lines as second distinct group. But in Pigeon [Fig. 11], we do read dotted lines on the bird's wings as one group and the straight lines as another, at first glance. Why do we read this pattern differently from the one on Quail? Space is the key: distance between lines determines whether we treat them as a group or not. The principle of proximity, therefore, emphasizes that, in our perception, we tend to group those elements with the least distance between them. In Quail [Fig. 10], the artist also employs the closure principle by using opened curves to imply its body's roundness.
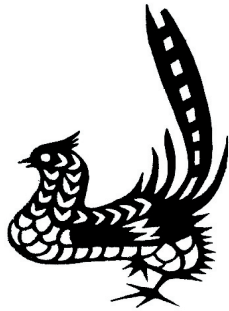
Fig. 12

Fig. 13

In Pheasant [Fig. 12], Yin-cut arrows move from head to neck to back; this movement continues in rectangles open in the center of the long tail, rectangles that parallel the path of the Yang-cut tail toward the sky. Four shorter, Yang-cut strips, along with direction—head to the tail—represent the pheasant's long, beautiful tail feathers. Yin and Yang cutting work together to create continuation here.

In Flower [Fig. 13], Yin-cut lines on petals not only resemble the pattern on leaves but also create a clockwise continuation.

This motion balances with the movement of the Yang-cut petiole, which supports the flower bending to the left. Furthermore, the contrast of opposite movements suggests that the flower is dancing, waving left and right. Continuation works here, and so does equilibrium through a clever combination of Yin-cutting and Yang-cutting.

Fig. 14

In Flower II [Fig. 14], two petals split left and right. But because of closure, Yin-cut curves on these petals try to form a circle closing the gap. Consequently, we see two opposite motions—open and closed—at the same time. It is this suggestion of closure that animates this two-dimensional work.

As noted earlier, folk artists apply Gestalt principles not only to leftover spaces and cutout spaces but to the transition among them as well. The combination of Yin- and Yang-cutting makes figure and ground, negative and positive space, act on each other, transform into each other, balance against each other—they are relative, not absolute, dynamic, not static—and finally, the opposites unite into harmony. Chinese cut-paper is an art form that epitomizes two concepts: in Eastern Yin-Yang philosophy, cut-paper represents the negative (Yin) and the positive (Yang), two sides of one, each transforming into and supporting the other; in Western Gestalt theory, cut-paper is a model of how we can consider, analyze, and evaluate parts of a whole as distinct components and how the whole of a visual image differs from and is greater than the sum of its parts. The fact that Gestalt principles occur widely in cut-paper, even though the Chinese peasant women had no knowledge of Gestalt theory when they created these beautiful works, proves that humans worldwide share many of the same perceptual tendencies and use the same visual principles in their creation of works of art. The language of vision does indeed transcend the barriers of cultural differences.

Zusammenfassung

Die Autorin verwendet sieben westliche Prinzipien der visuellen Wahrnehmung, die von der Gestalttheorie herausgearbeitet wurden, um eine traditionelle östliche Volkskunst zu analysieren, nämlich die der chinesischen Scherenschnitte. Sie sieht darin Belege dafür, dass Menschen kulturübergreifend in gleicher Weise wahrnehmen und auch die gleichen Wahrnehmungsprinzipien für das künstlerische Schaffen nutzen. Sie legt weiters dar, wie chinesische Scherenschnitt-Künstler unter Anwendung des östlichen Yin-Yang-Konzepts ihre Scherenschnitte aus Weggeschnittenem (Yin) und Übrigbleibendem (Yang) gestalten, worin die aktive Anwendung von Gestaltprinzipien gesehen werden kann.

Summary

Using Gestalt theory—seven Western visual principles—to analyze a traditional Eastern folk art form, Chinese cut-paper, the author argues that human beings possess many of the same visual perceptions and use the same visual principles to create art, regardless of culture. And further, the author explains how Chinese cut-paper artists—using Yin-Yang, a concept from Eastern culture—create cut-paper with both cutout (Yin) and leftover (Yang) spaces, thereby applying Gestalt principles actively.

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Autorenangaben:

Xinran Hu
5712 Rocky Point
Evansville, IN 47712
U.S.A.
Email: xhu@usi.edu