

A CULTURE IN PAPER

The art of folding

The magic of paper lies in its adaptability. Sometimes, a mere fold is sufficient to transform a simple sheet of paper into a work of art.

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The materials that man uses to turn into artistic expression need, of course, hands to be manipulated. But they almost always also need instruments, tools and machines to be modeled, sculpted, assembled and to assume their new identity. From plain material to work of art.

Paper, too, can be manipulated through similar procedures; it can be painted, cut and glued to become a painting, a sculpture, a structure and a thousand other things besides. But, with respect to wood, clay, metal and other materials, it can be transformed even without external intervention.

The hands of the artist are enough to give it life and meaning through folding.

Paper is a light, economical, easy-to-find material. Above all, it is two-dimensioned and limited in its size. A single sheet of paper has no support structure per se, but a simple fold is enough to make it stand on its own, upright, and to be able sustain weight. And with a few more folds, it can be turned into a box, a bag, a container.

With hand-made folds alone, the anonymous two-dimensional sheet can be turned into an important three-dimensional object.

Examples of the shapes that can be produced with this technique are many. As are the authors – sometimes artists, sometimes just art lovers – who find in paper folding a way to express ideas and emotions. The folded paper then becomes a communication instrument possessing a great impact of its own because it comes from a common material of everyday use. An overview of "folded paper" can be made through a series of opposite concepts such as common-particular, flat-volumetric, weak-resistant, useless-useful, smooth-textured, stiff-elastic, banal-interesting, fixed-mobile, etc., where the first element indicates the basic condition of the paper and the second, the transformation obtained by folding it. And this passage between the first and second element acts as a form of magic and turns an "ugly" piece of paper into a "beautiful" work of art. The fold breathes life into the paper, creating at the same time the design, support structure and articulation of the surfaces.

THE SIMPLEST TYPES OF FOLDING ARE PROBABLY THOSE THAT DERIVE FROM THE ANCIENT JAPANESE ART OF ORI-GAMI: symbolic decorative elements, useful containers for ritual offers, representations of flowers and animals, protagonists of popular legends. The subjects also develop outside of Oriental tradition with results that border on the unlikely. Still within Oriental tradition but subsequently re-invented also in the historic Bauhaus design school, are the experiments made to obtain three-dimensional shapes through a series of positive and negative (downstream and upstream) folds with an accordion effect. The paper assumes a creped aspect and this creping makes it extremely strong but at the same time elastic and malleable. Spherical shapes to be used as lamps, expandable and re-closable covers, sculptures with spiraled shapes that follow the growth law of seashells. Other creping forms are obtained through a rotation of polygonal folds, yielding interweaved surfaces with suggestive nuances of transparency, or overlapping of folds that create a threedimensional texture with effects similar to certain stratifications of the earth or to the rows of roofing tiles on houses, or to the surface of pineapple skin or even the structure of particular vegetable leaves.

ONE OF THE MOST INTERESTING APPLICATIONS OF PAPER FOLDING IS THE MODULAR SYSTEM. Paper is limited in its dimensions and in order to be easily folded, it must not exceed a certain grammage. Hence, normally, we work with sheets that go from 60 to 200 grams, in a size of 70 x 100 cm at most. There is also paper that comes in rolls, but it is extremely difficult to work with and limited. In order to obtain a large piece, a "giant origami", one must try to get around this problem. We fold a lot of sheets through a system that allows reciprocal interlocks, thus allowing to build in a way similar to toy building blocks. The shapes thus obtained are geometric and figurative, architectural elements and

elements of set design. The modular system offers the possibility of not only building huge objects without the use of glue, but

also allows to re-use the folded sheets for other projects.

A strange way of folding paper is one that in a way "betrays" the rules of origami's sequential folds: here, the folds are instead random.

The sheet is repeatedly crumpled, sometimes even moistened and, once smoothed out again, completely loses its original features to take on those of a fabric. Yielding but at the same time rigidly structured in thousands of tiny casual folds, the sheet then lends itself well to being folded and modeled according to lines that give it shape and volume.

FOR ARTISTS, PAPER REPRESENTS A DUCTILE, READY MATERIAL TO EXPRESS IDEAS. So much so that it is manipulated directly, without the need to prepare sketches or design projects as one would do with other materials (wood, metal, etc.). A sheet of paper in the artist's hands, and the idea immediately takes shape directly through the folds. Studying paper folding also allows producing models for folding other materials (fabrics, metal sheets, polycarbonates, etc., etc.) for industrial design objects. Because paper, thanks to its great versatility, can simulate rather than imitate different materials and, at the project design study phase, replace them with practical and economic results.