

<http://gallery.bridgesmathart.org/exhibitions/2013-bridges-conference/burczyk>

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Paper is my medium and paperfolding (origami) is my favorite technique. When I design a new artwork I avoid traditional origami bases. I prefer folds and constructions useless for most of paperfolders. I reduce number of folds, place folded lines in unusual configurations, do not rely on strict constructibility of folds and leave symmetry away. But I still depend on geometric structures. When I create, I move and push a piece of paper in my mind and I imagine folds and curved shapes resulting from the paper movement.

I blend rigorous and abstract geometric shapes with material and flexible pieces of folded paper into united forms. A spectator may admire spiral twisting around each other, arcs, convex and concave surfaces. Or explore deeper a geometric structure.

Shapes derived from flat piece of paper and geometric concepts begin their independent life. Their internal beauty may be discovered only if the artwork is reinterpreted again.



Golden Dream

13cm x 13cm x 13cm

folded paper

2012

Flower-like regions of the artwork are actually 5-fold vertices of a polyhedron. The polyhedron is reflected in the artwork in a way that faces, edges and vertices correspond to different vortexes of spirals.



Fighters

17cm x 17cm x 17cm

folded paper

2012

I was inspired by fold-and-cut problem (how to fold a sheet of paper, to get a given shape with a single cut).

The artwork is a modular origami object based on several modules. I place random irregular quadrilateral into a regular square shape of paper sheet. Then I solve fold-and-cut problem (but no actual cuts). The result is an irregular module with non-symmetric center part, different lengths and shapes of spirals. Finally I assemble randomly positioned modules into a regular structure of cube. The artwork presents balance between randomness of modules and order of the structure.



Broken Cube
9cm x 9cm x 9cm
folded paper
2013

I started from a cube. I broke every face of the cube along diagonals and rotated resulting halves by 180 degrees. Finally I replaced vertices of the cube by 3-fold spirals.

Resulting surfaces intersect and smoothly change from flat to twisted regions. And metallic paper add light and shine effects.