

**MEHRDAD GAROUSI***Artwork:* **SEVEN POINTED STAR**

**Topic: Topologic Sculpture (Animation)**

**Author:**

**Mehrdad Garousi**

Freelance fractal artist  
Iran

<http://mehrdadart.deviantart.com>

**References:**

[1]

<http://www.cs.berkeley.edu/~sequin/GEN/Sculpture%20Generator/>

[2]

<http://www.cs.berkeley.edu/~sequin/>

**Abstract:**

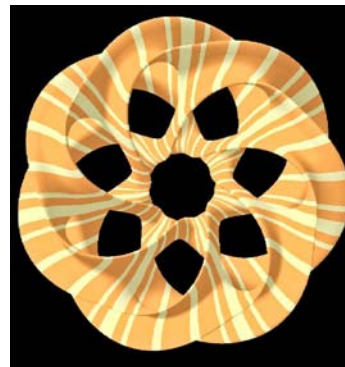
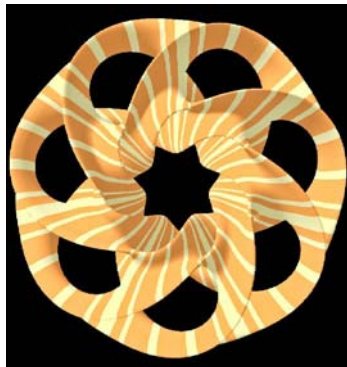
This piece presents a seven-fold topological sculpture with a steady position in the screen but a continuously changing condition in its place. Being observed carefully, the animation is composed of two basically constructing elements, one: the constructing material of the actually existing shape which is known as the entity of the sculpture, like the substance of the universe and the other: the vacuum holes inside the arms of this sculpture which are the elbows of evolution of life .

The sculpture, textured with stripes, has a steady movement from forth to back and vice versa. The arms of the sculpture like jelly arms can move and twist flexibly inside and get back forth again from the outside. The sculpture, condoning its incidental arms and holes, can be assumed as a tube with a main central hole at the centre. This tube can be easily supposed to rotate around its circular axis sited at the center of the constructing cylinder.

The second property rises from the vacuum holes showing up between arms. When arms start to rotate, the caused holes between them start changing shape, too. The forms provided by these changes in the condition of the holes, due to symmetry of the whole shape, provide black symmetric shapes which present new characters apart from the main character of the sculpture. The most eye-catching result of such a property is the central black seven-pointed star which is rotating and changing shape steadily. It can be seen that back-and-forth twists of the sculpture cause clockwise rotations for this central black star. For sure, even supposing such simple animation was impossible before the presence of computers which facilitate manipulation and adjustment of several elements simultaneously with the least inaccuracy.

The main still shape of this piece has been created in SculptGen (1) and by changing a factor named "Turning Around Axis" separated frames for the animation have been provided one by one. This amazing software has been created by Carlo H. Sequin (2).

My animation can be found here on the web: <http://mehrdadart.deviantart.com/#/d2t965v>



**Contact:**

[mehrdad\\_fractal@yahoo.com](mailto:mehrdad_fractal@yahoo.com)

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Sculpture, Animation, Topology