



**Professor Ahmad Rafsanjani**

See:  
<https://scholar.harvard.edu/rafsanjani/home>  
[https://scholar.google.com/citations?user=k\\_glFNkAAAAJ&hl=en](https://scholar.google.com/citations?user=k_glFNkAAAAJ&hl=en)  
<https://mat.ethz.ch/departement/people/person-detail.MTcwMjg3.TGlzdC8yNTQzLC0xNjM2MjE2MDE=.html>

**Complex Materials**

ETH Zurich, Switzerland

Formerly with the Katia Bertoldi group, Harvard John A. Paulson School of Engineering and Applied Sciences  
 While a post-doc at Harvard Dr. Ahmad Rafsanjani wrote: “I am a SNSF postdoctoral researcher in Bertoldi group at Harvard School of Engineering and Applied Sciences. I am working in the general area of mechanics of materials with a focus on designer matter to create new architected materials with novel functionalities. In my research, I get inspirations from natural and biological systems, origami, kirigami and architecture.”

**Education:**

Doctor of Science (2013), ETH Zurich, Switzerland

Master of Sciences in Mechanical Engineering (2009), Iran University of Science & Technology, Iran

Bachelor of Sciences in Mechanical Engineering (2006), Ferdowsi University of Mashhad, Iran

**Professional Experience:**

Scientist (2018-now), ETH Zurich, Zurich, Switzerland

Postdoctoral fellow (2016-2018), Harvard University, USA

Postdoctoral fellow (2014-2016), McGill University, Canada

Research Assistant (2009-2013), ETH Zurich & EMPA, Switzerland

**Selected Publications:**

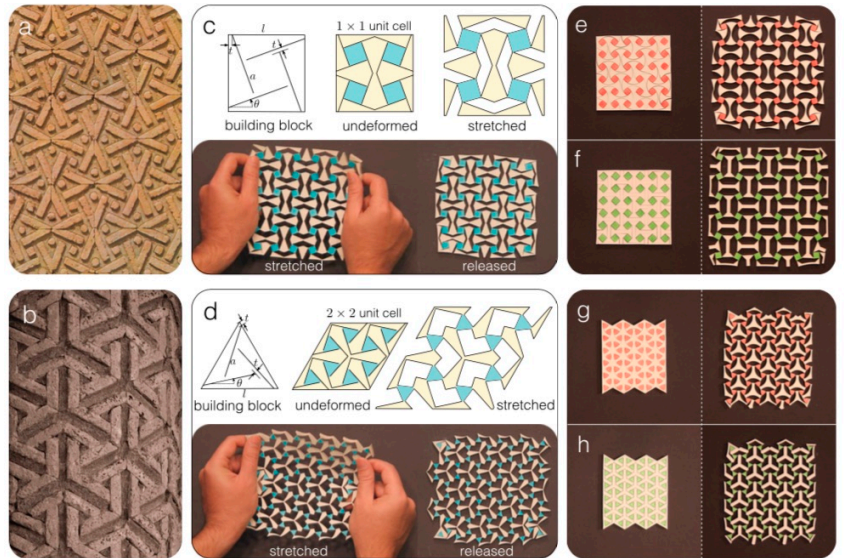


Figure 1: Bistable auxetics. **a, b**, Brick decorations based on square and triangular motifs in the *Kharrāqān* twin tomb towers in western Iran. **c, d**, The building block and the corresponding unit cell in its undeformed and deformed state comprises square and triangular rotating units with tilted cut motifs, which can maintain the stable deformation pattern after the load release. **e-h**, Undeformed and deformed states of bistable auxetics with square and triangular rotating units for circular and parallel cut motifs. See Movie S1 for further demonstration.

From: Rafsanjani A., Pasini D., **Bistable auxetic mechanical metamaterials inspired by ancient geometric motifs**, *Extreme Mech. Lett.*, 9 (2016), pp. 291-296

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