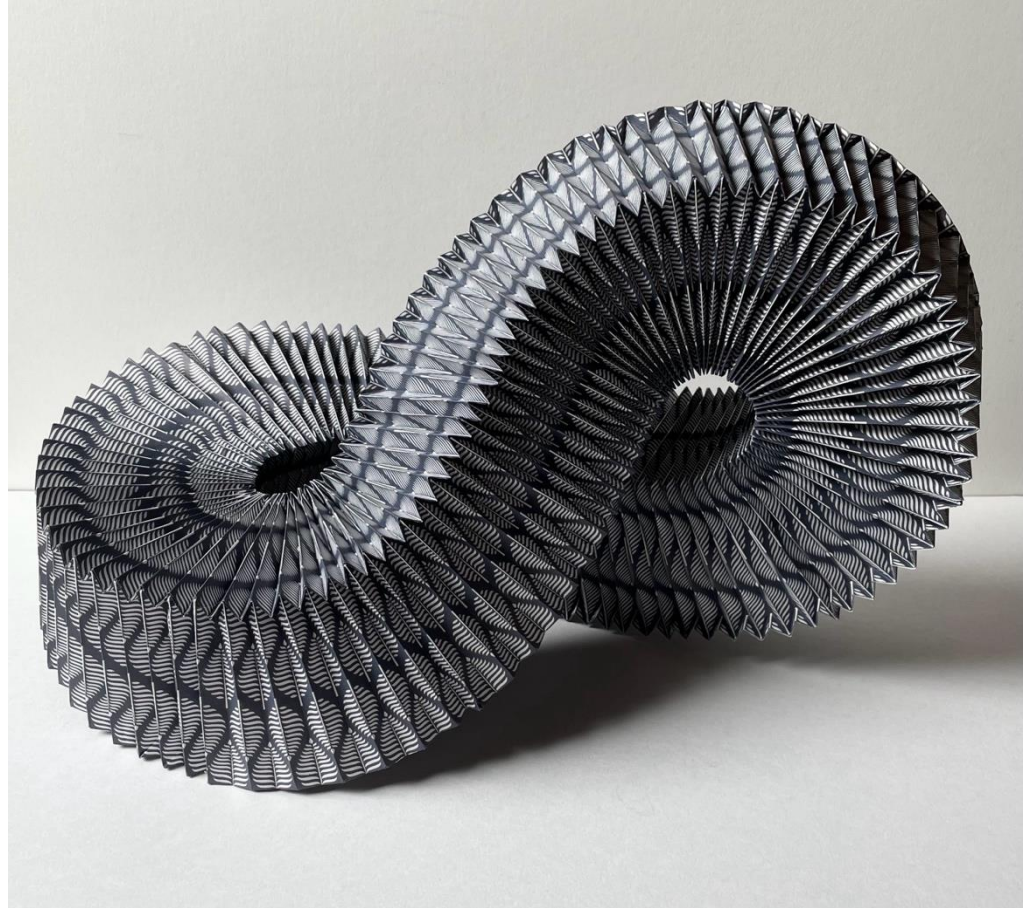


THE ART OF GEOMETRIC PAPER FOLDING

Henk van der Vorst
Woudschoten, 1-10-2026



motivation



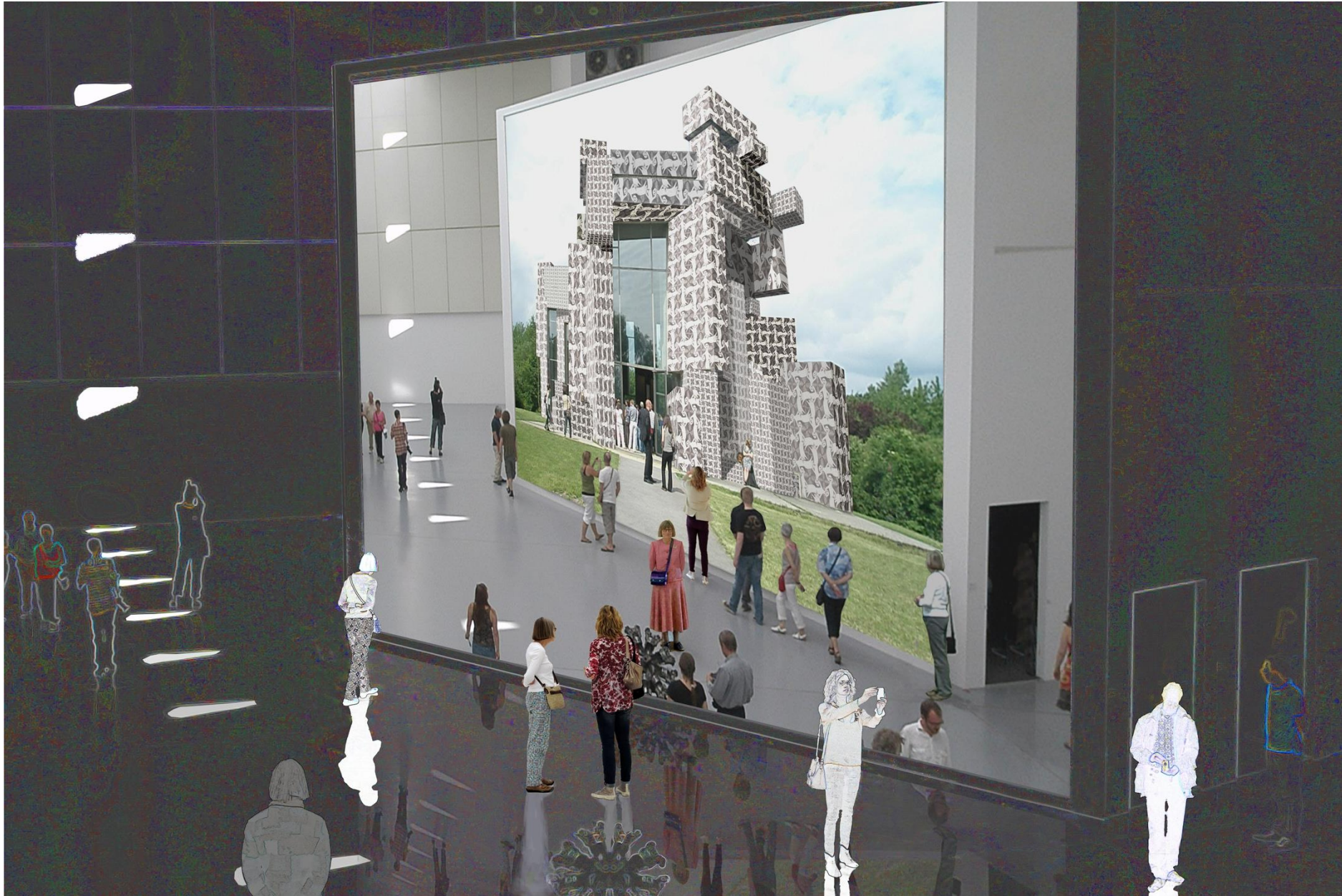
motivation



motivation

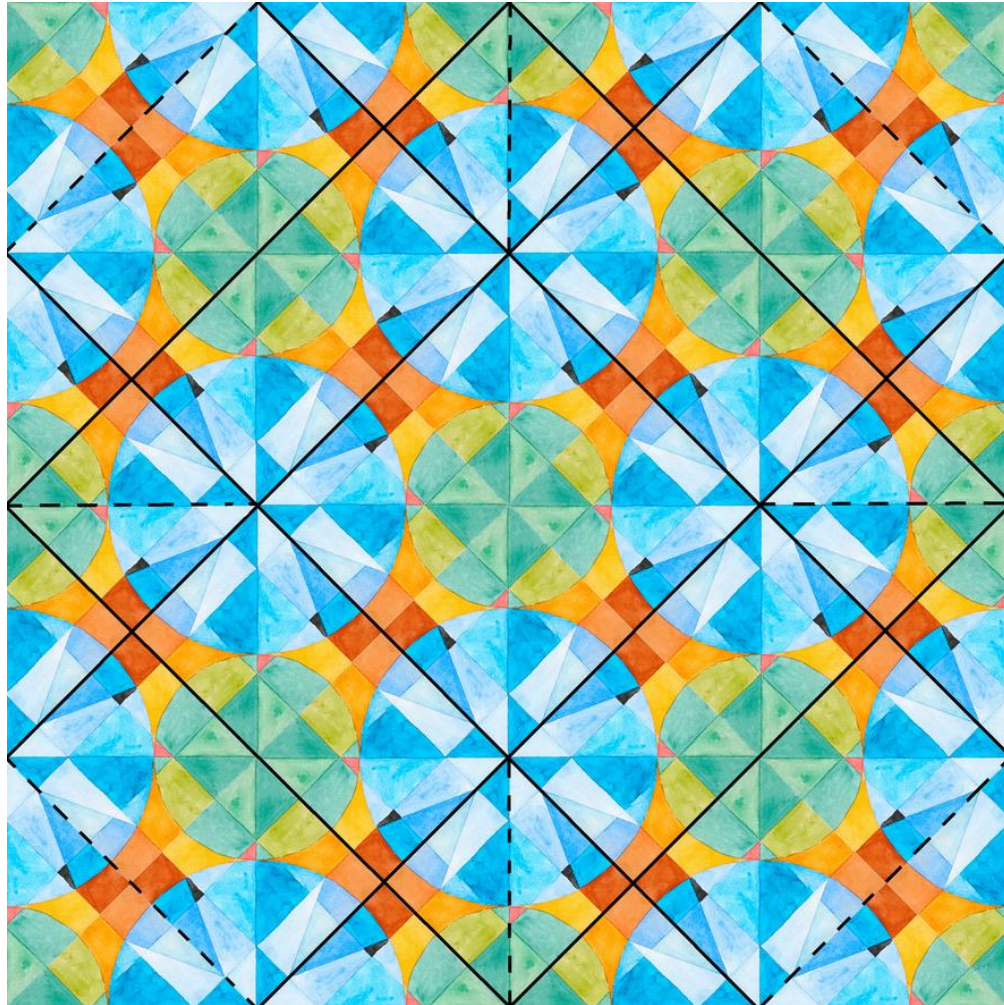


Photoshop 3D



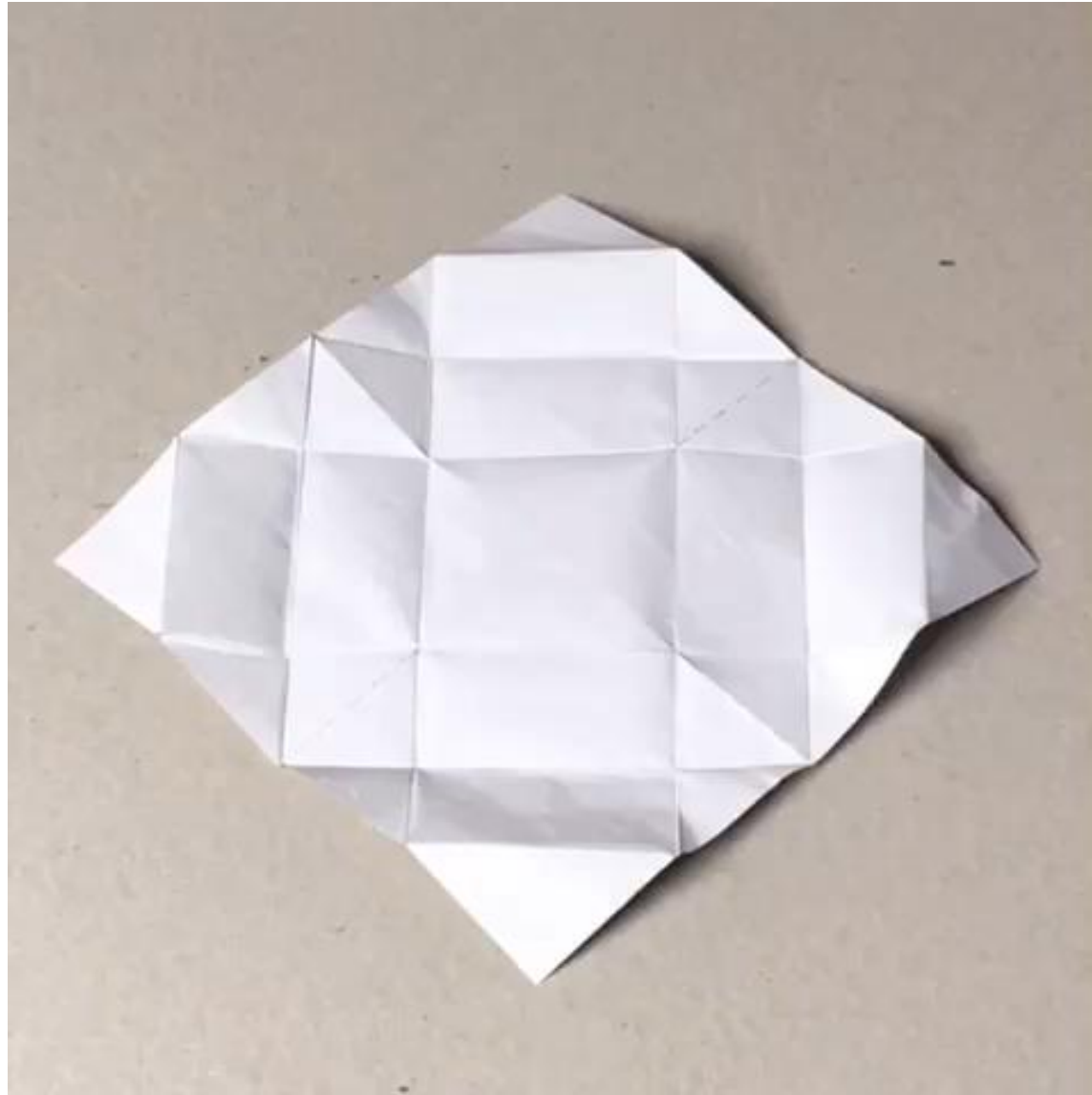
Classical ORIGAMI

Masu-box



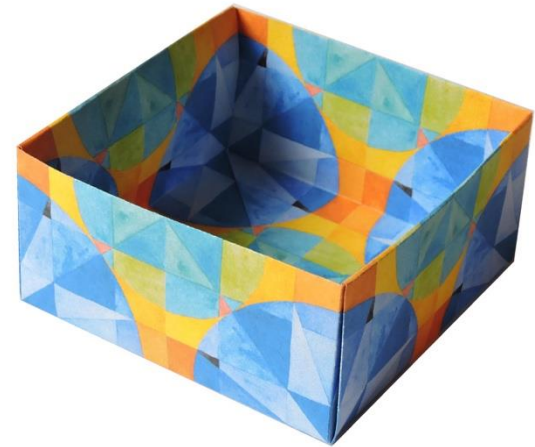
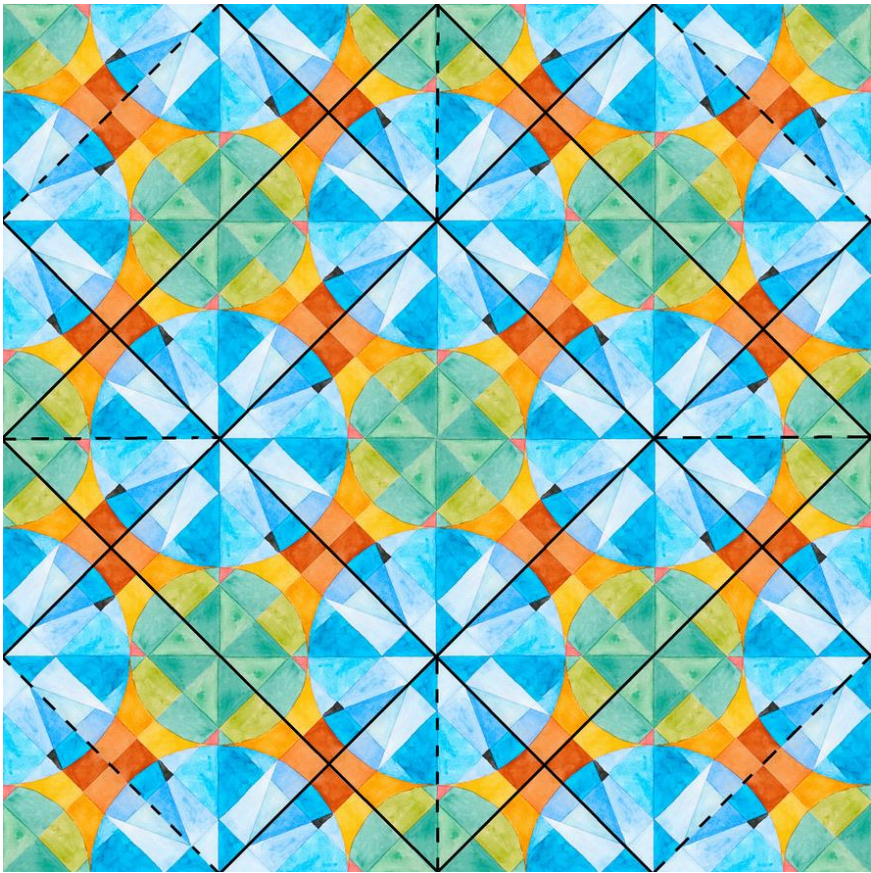
Classical ORIGAMI

Recipe,
sequential



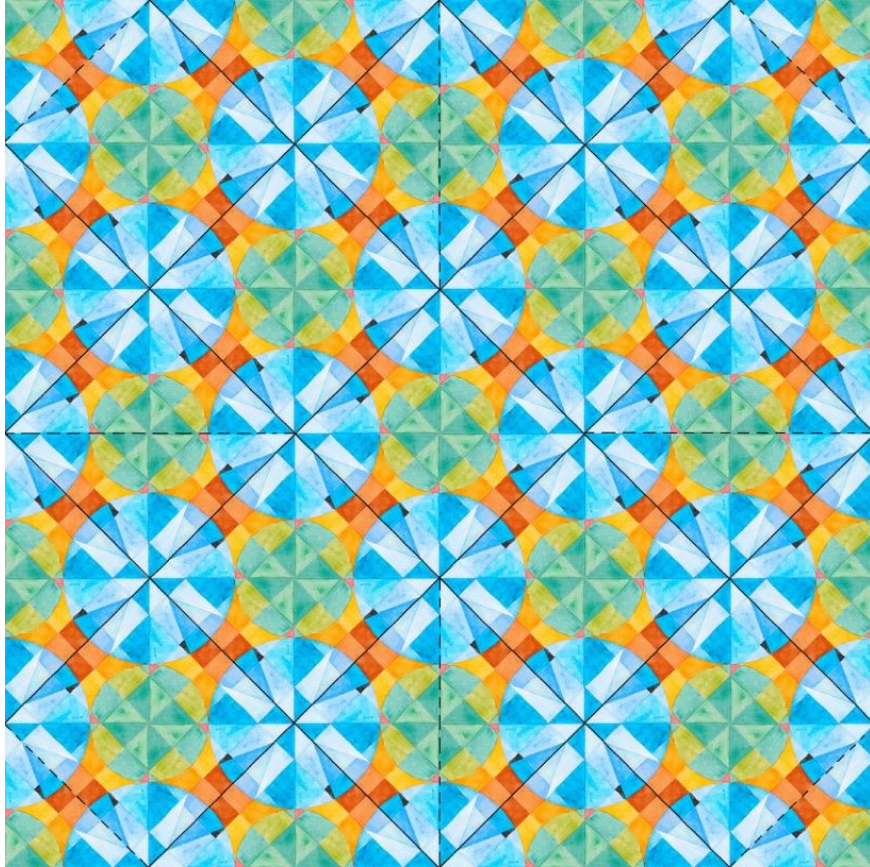
Classical ORIGAMI

Result



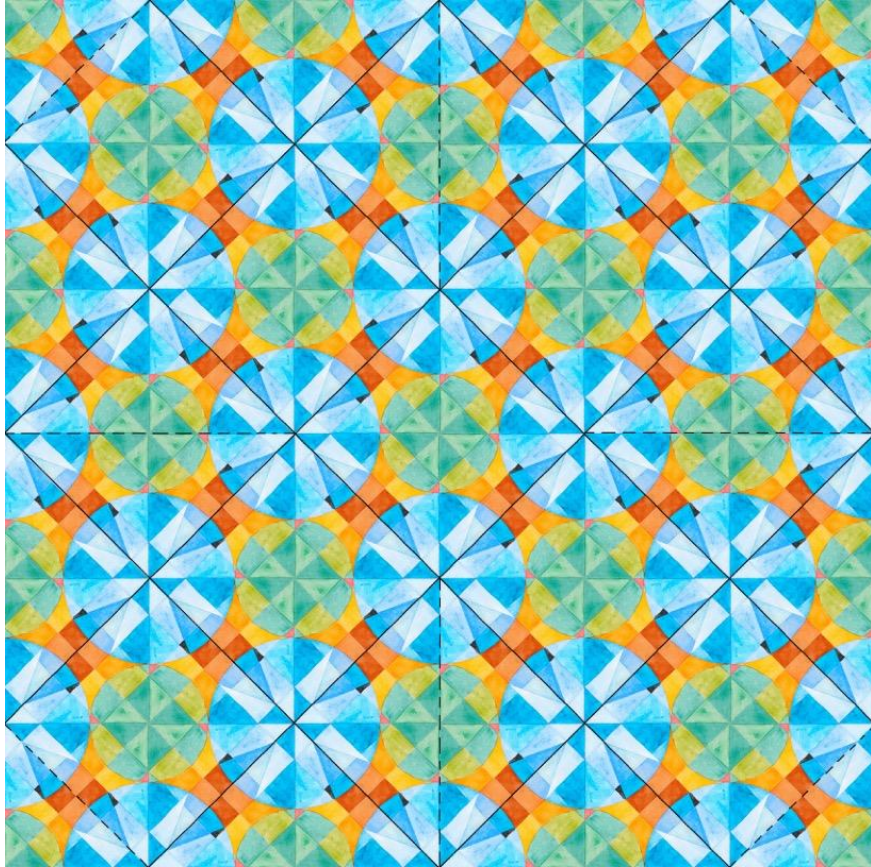
Classical ORIGAMI

Masu-box full size



Classical ORIGAMI

Masu-box full size

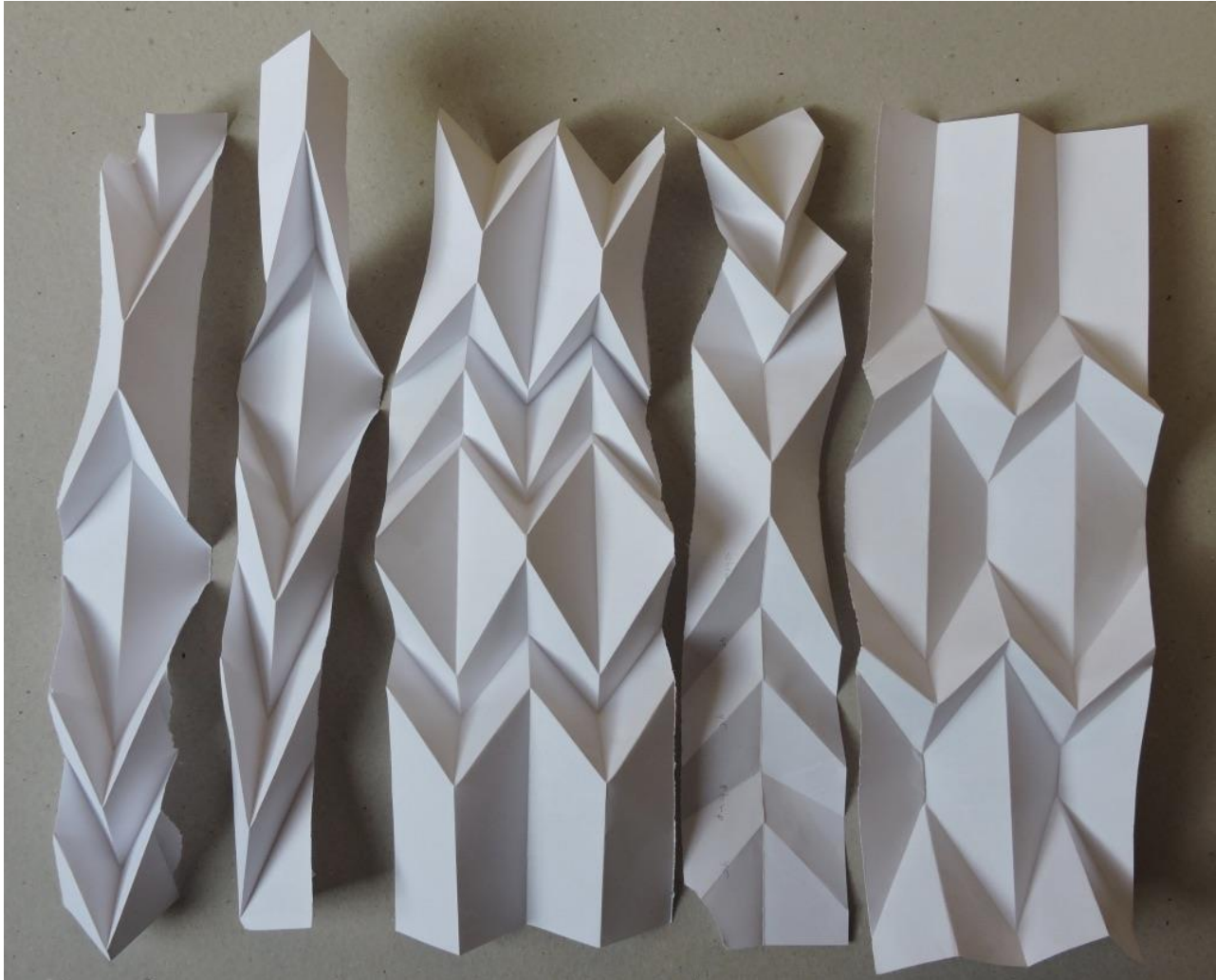


GEOMETRICAL FOLDING

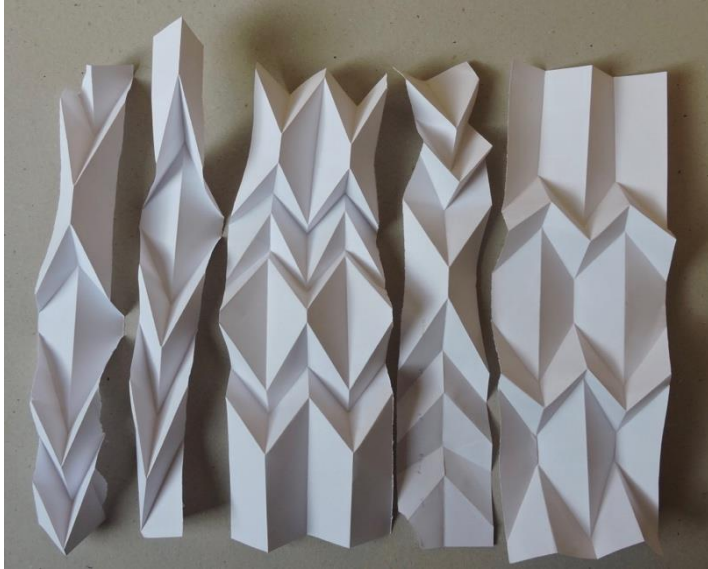
Blocks of Folds, simultaneously, design of pattern,
Realisable?



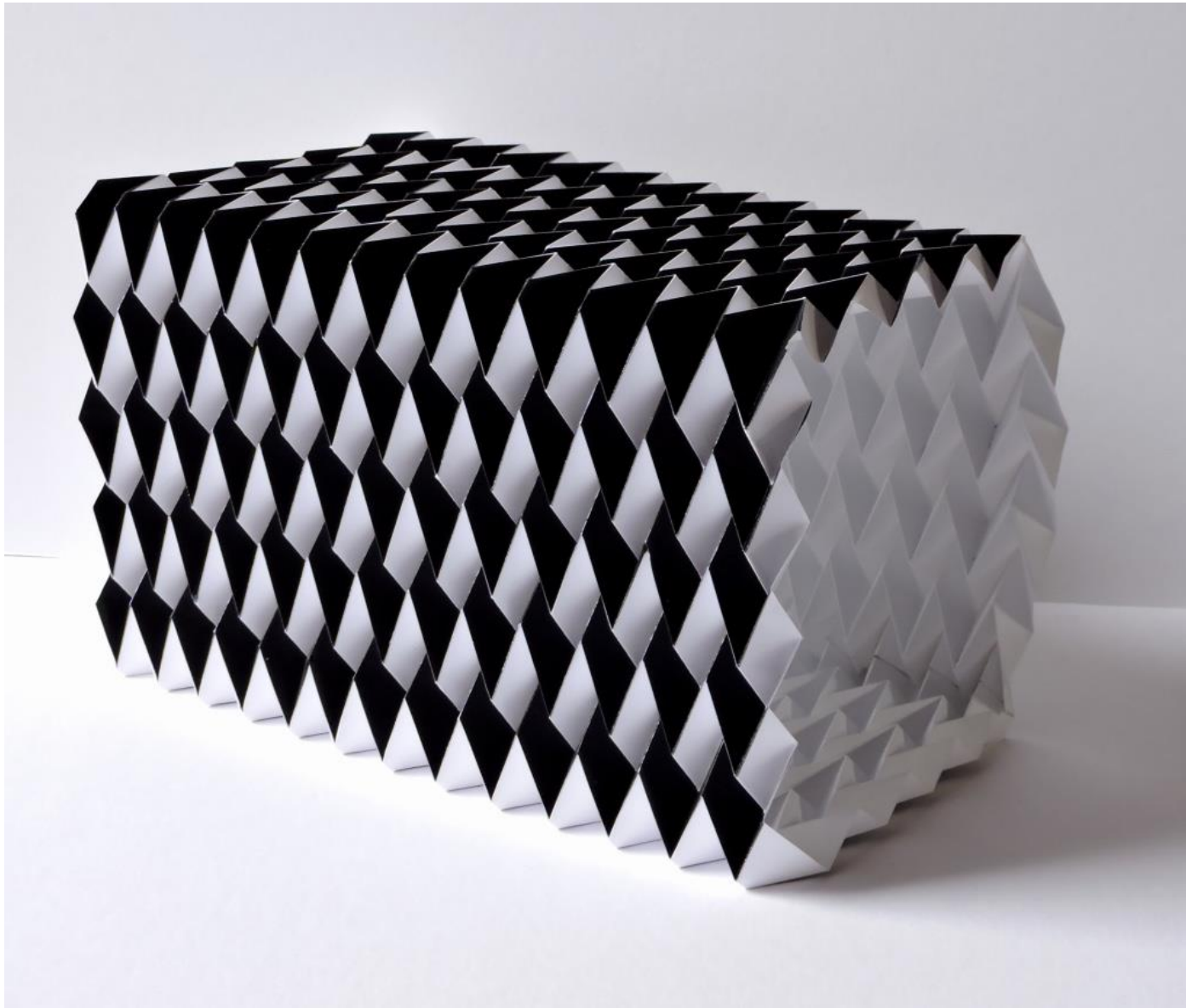
MIURA-ORI OR V-Fold



MIURA-ORI OR V-Fold



V-fold with variations



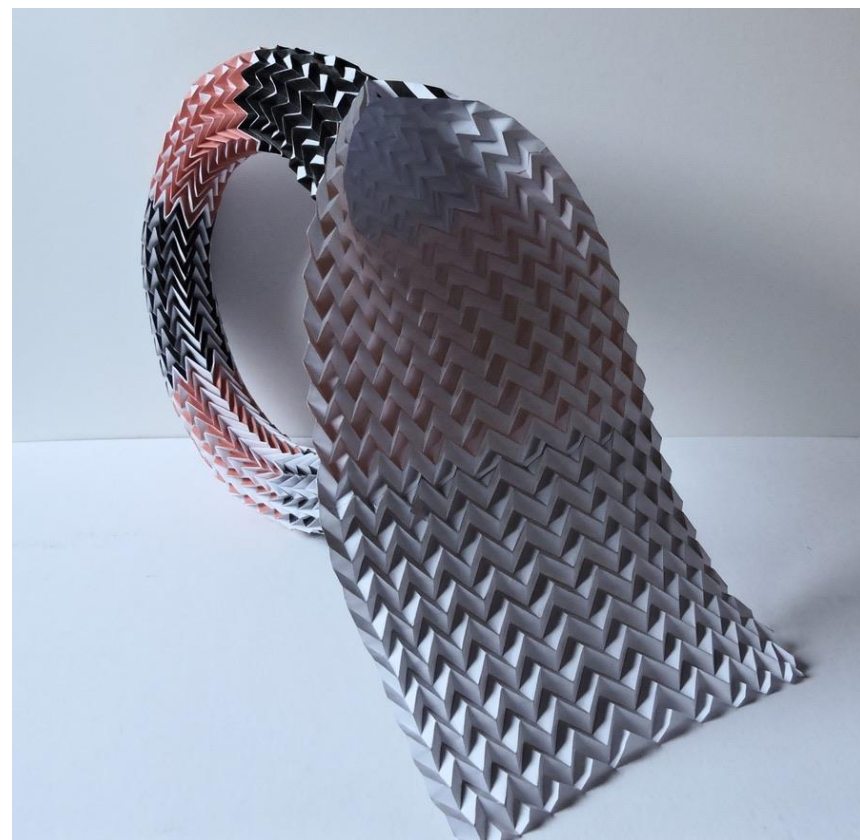
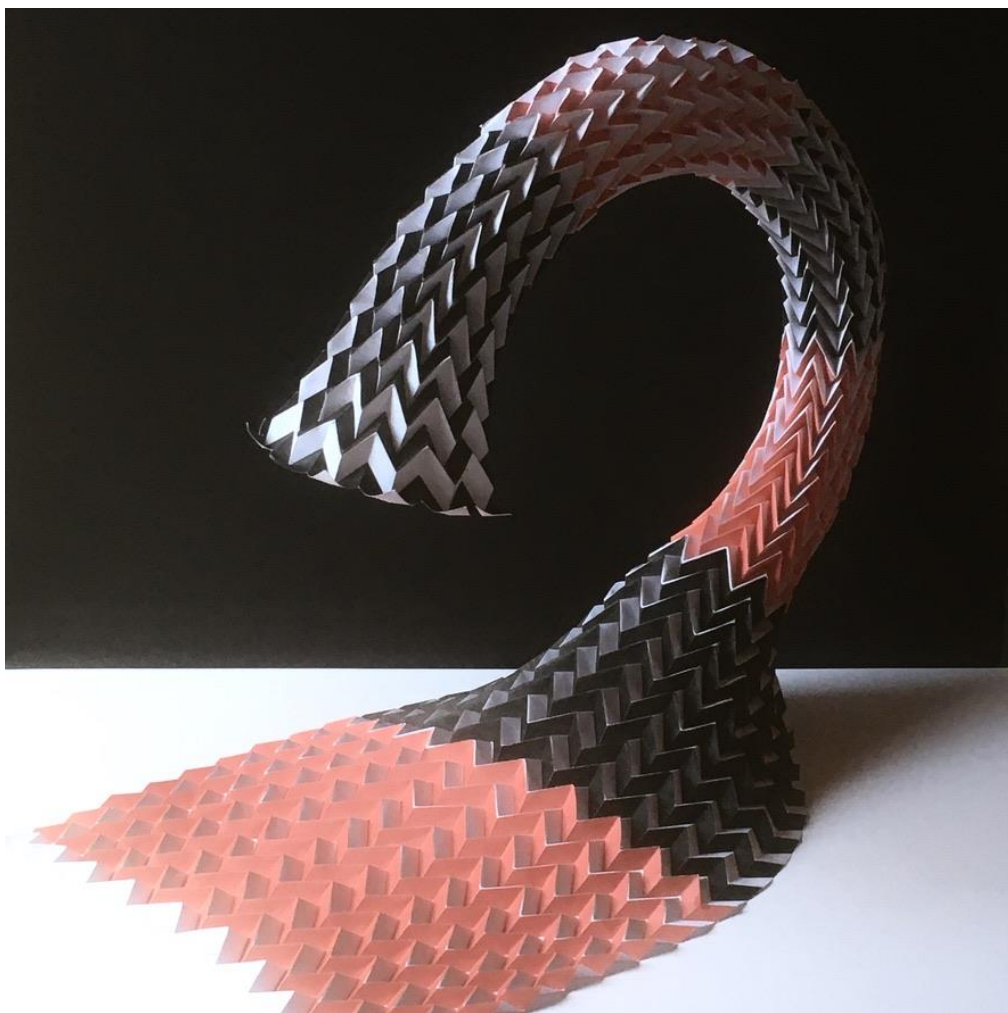
8 years later



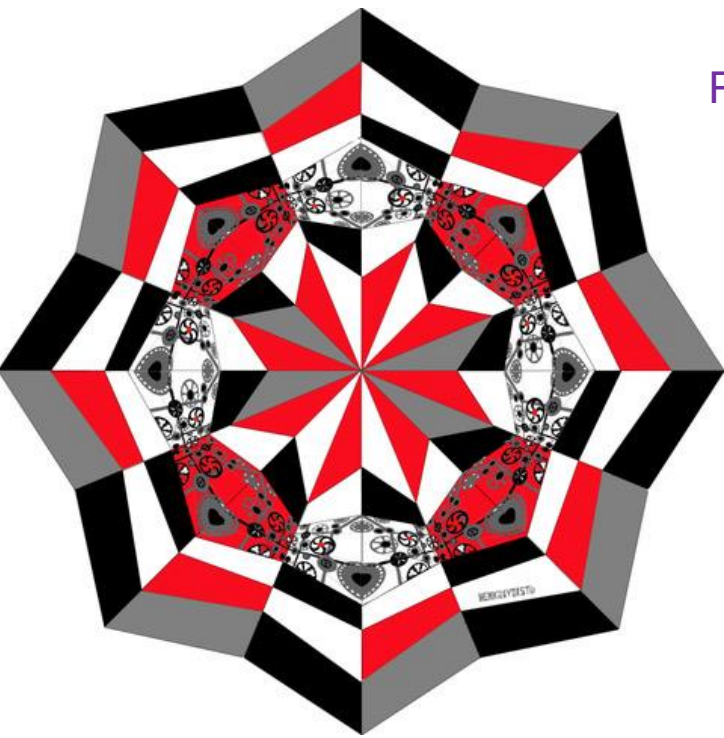




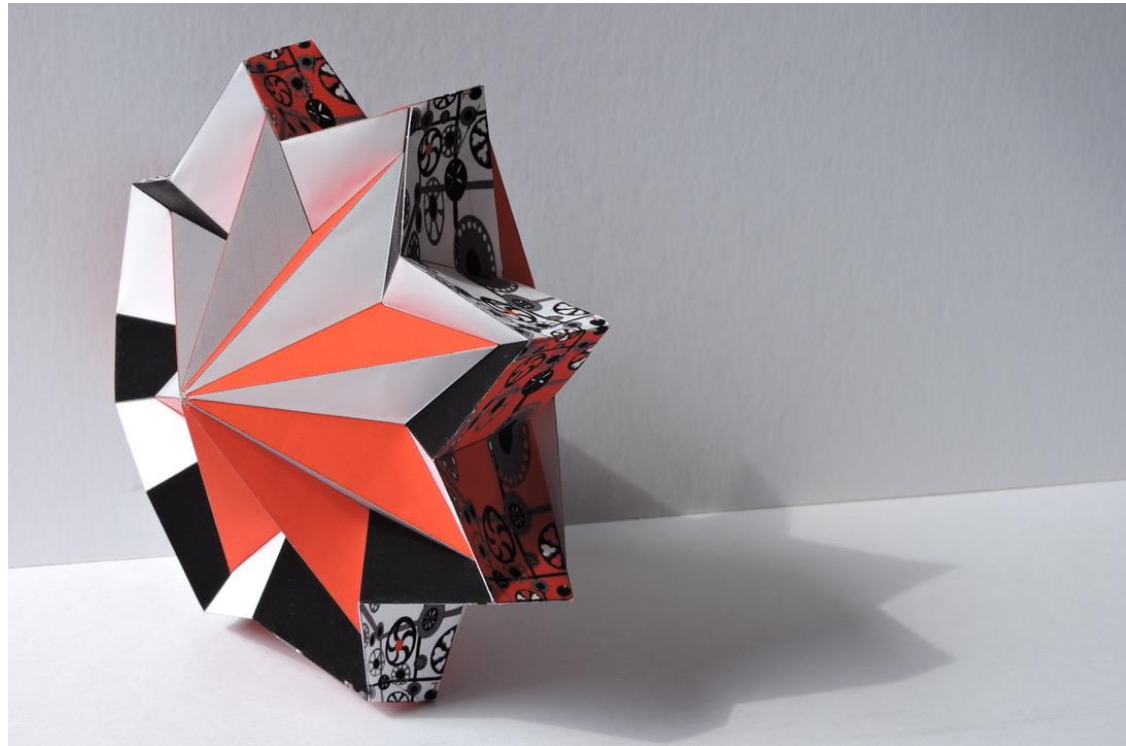
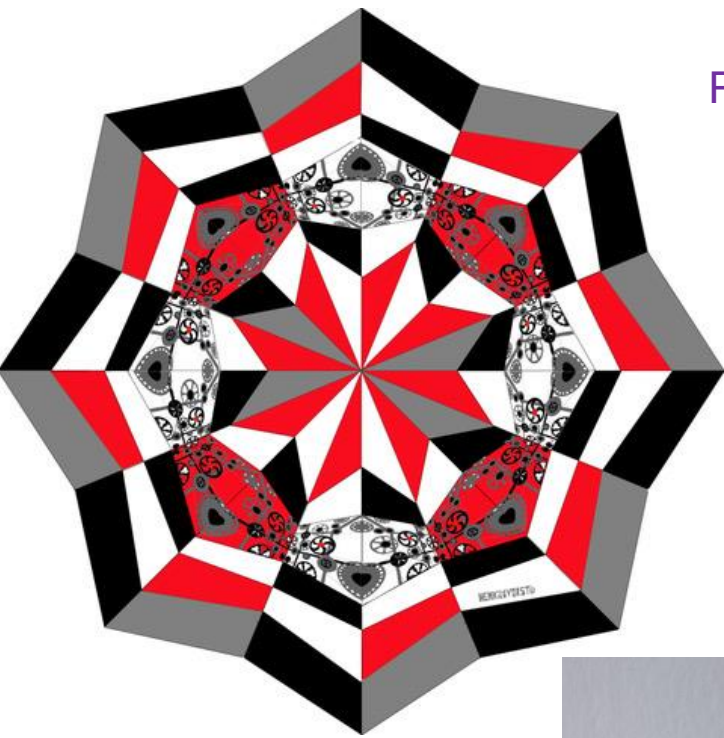




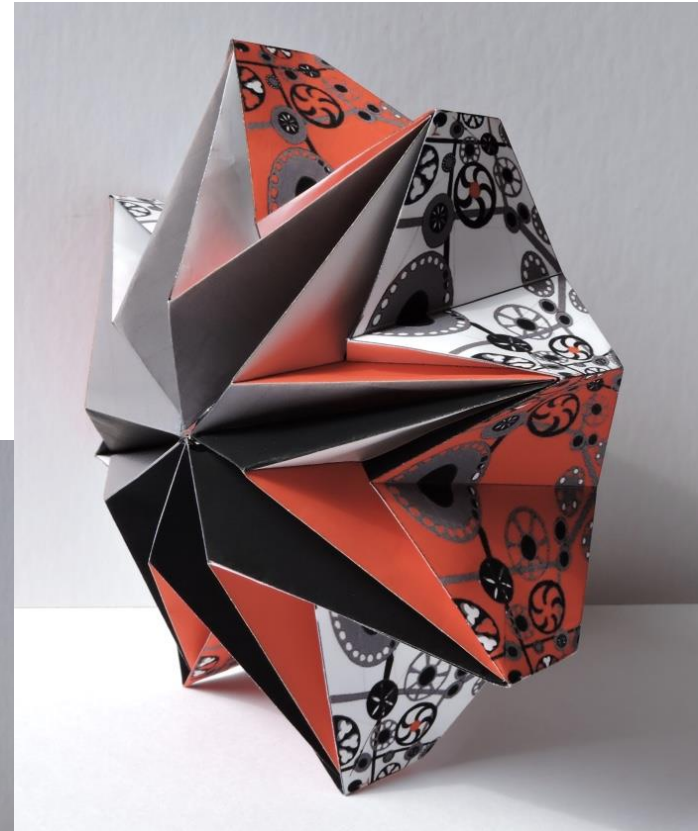
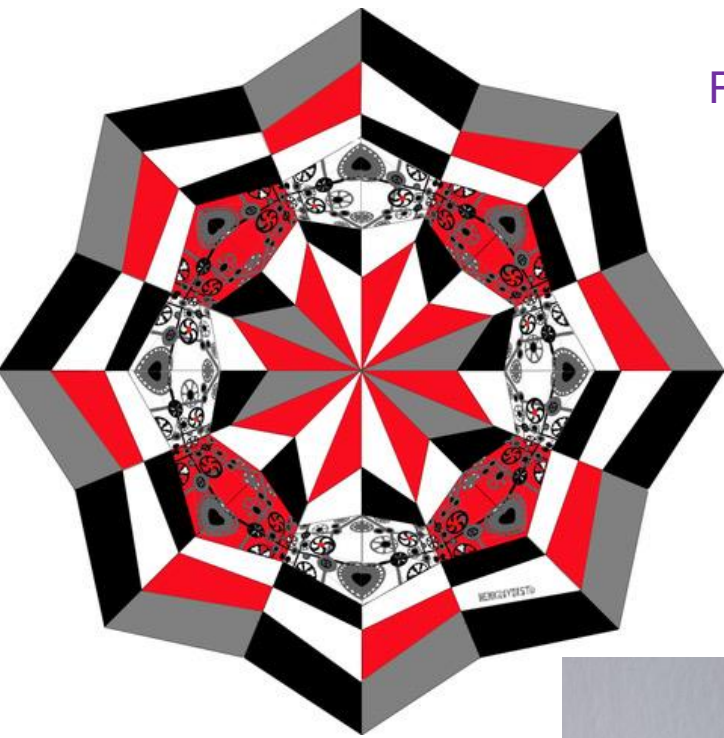
Radial V-folds



Radial V-folds



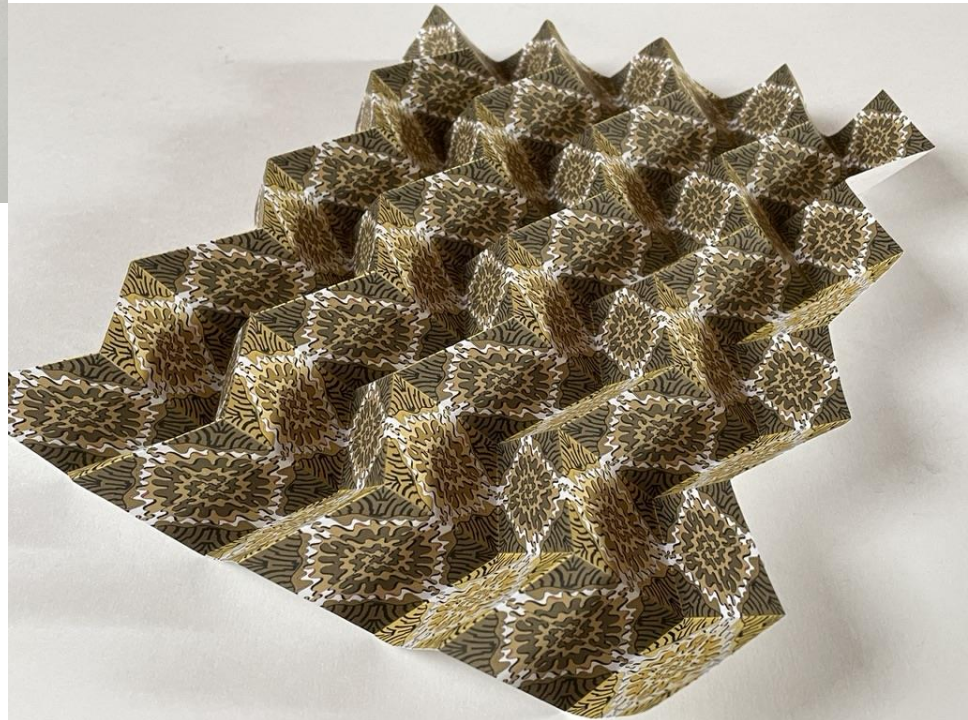
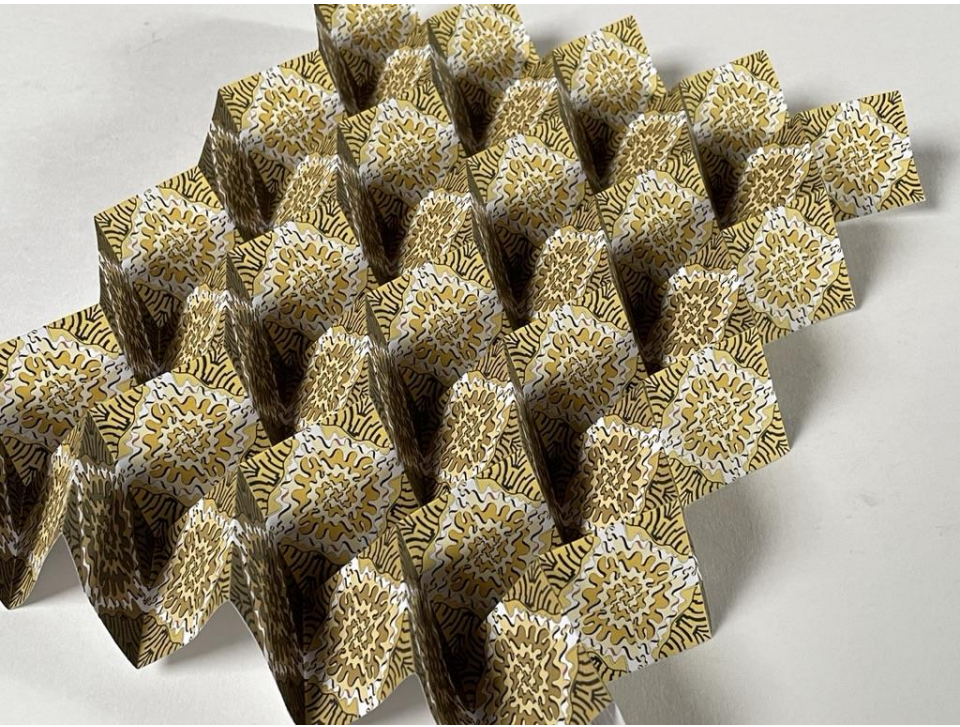
Radial V-folds



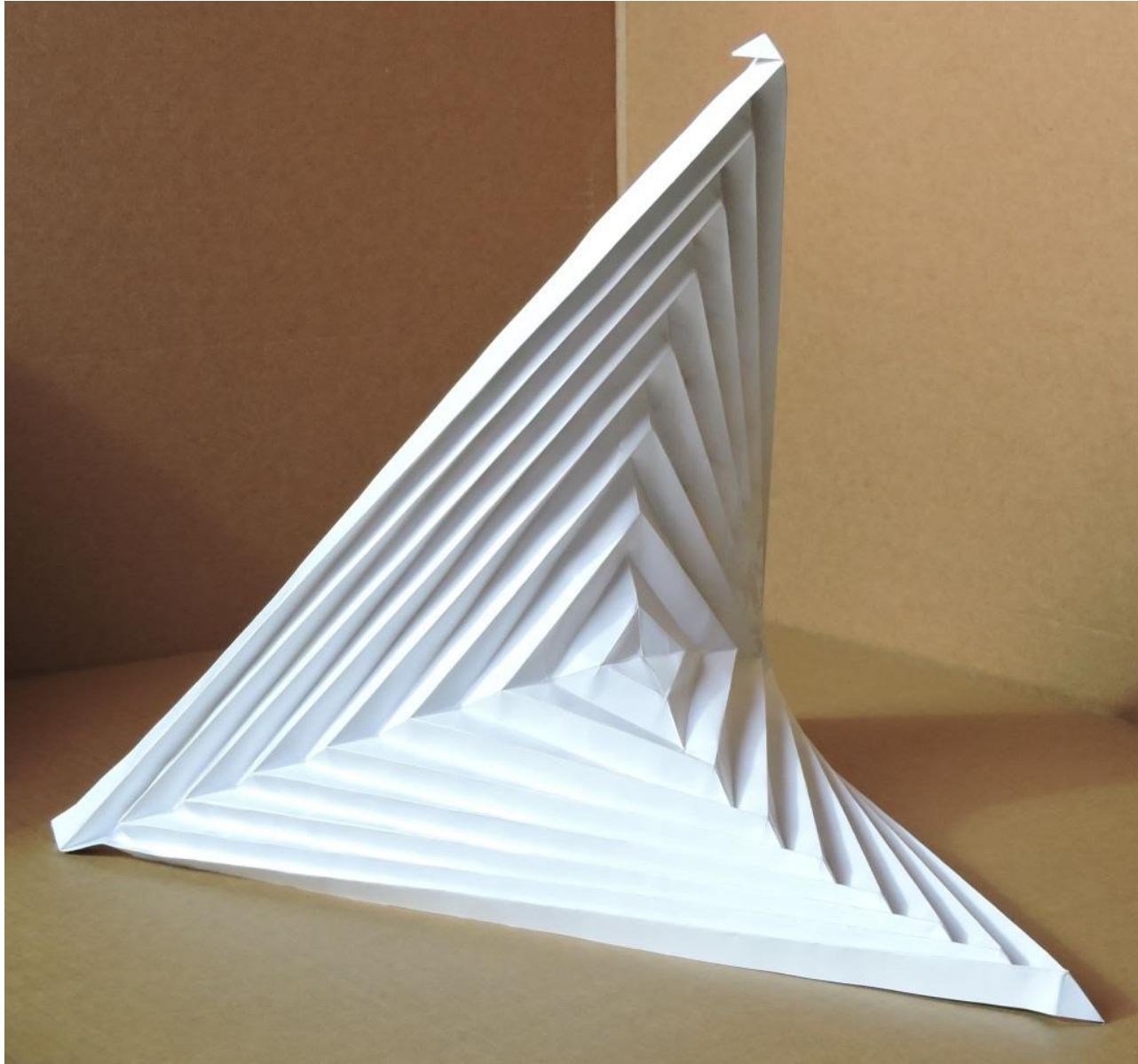
Justin-Kawasaki principle



Negative Poisson Ratio



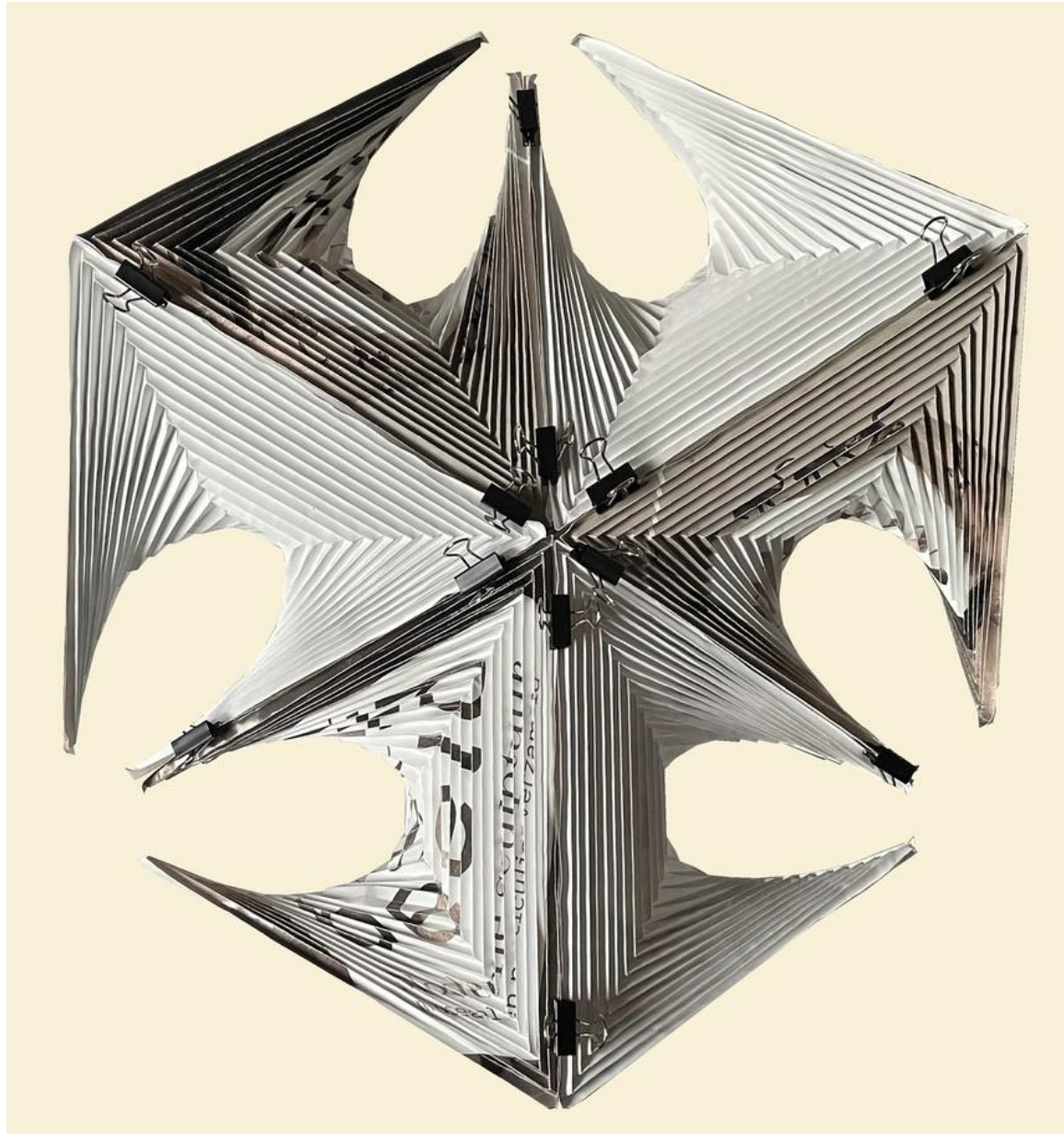
Hyperbola



Combinations



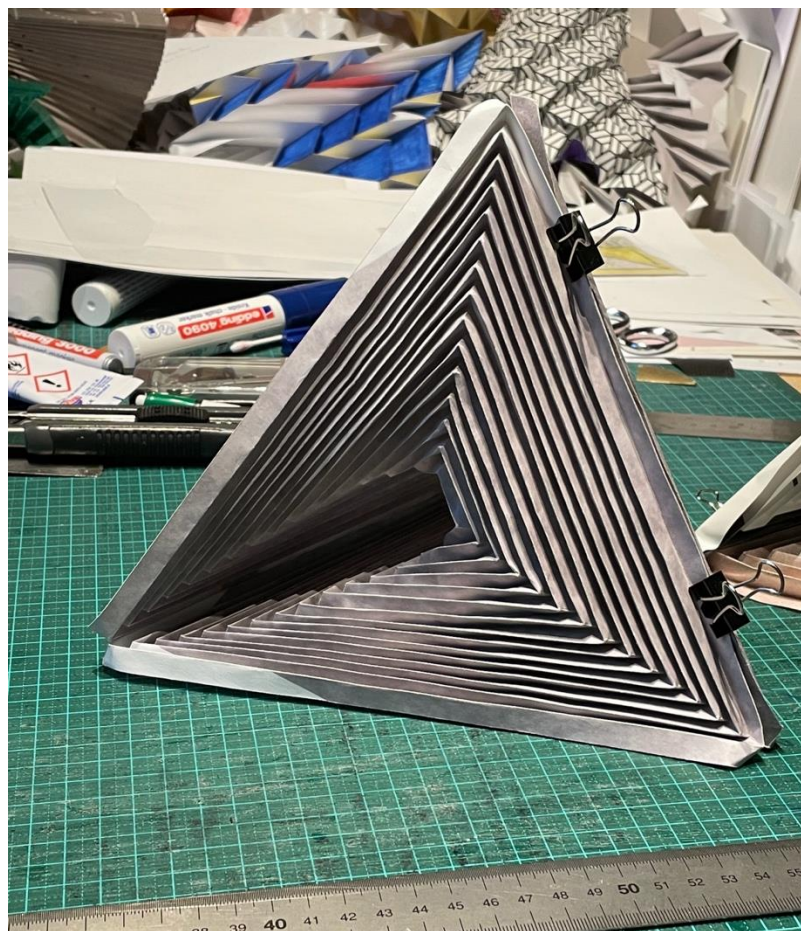
a hexagon as starting shape



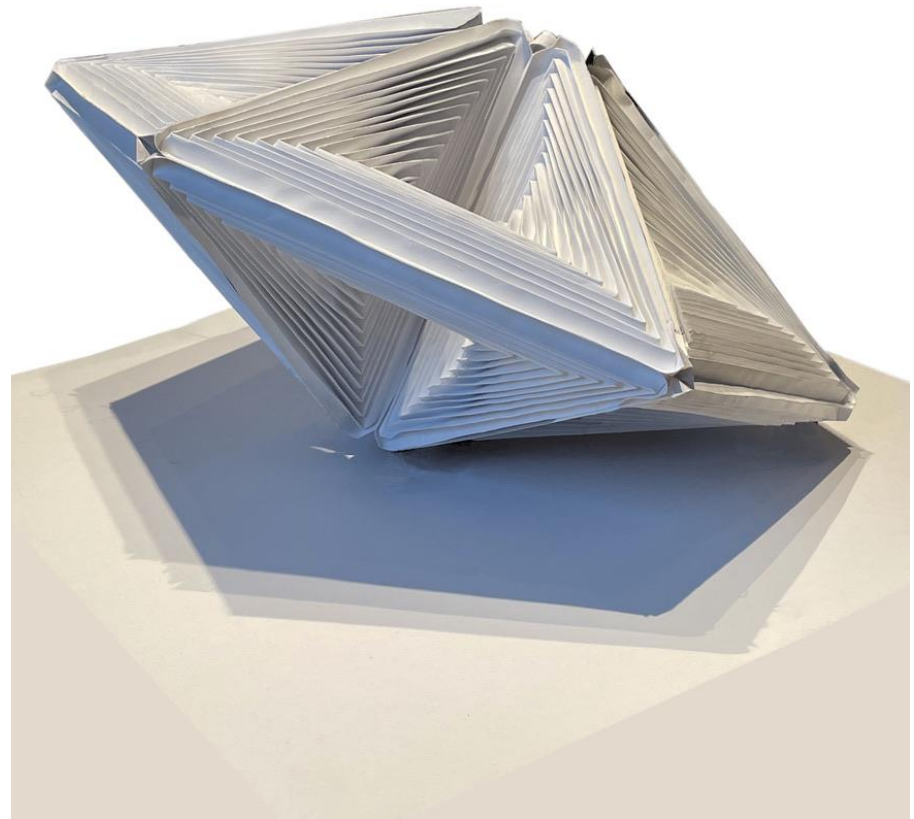
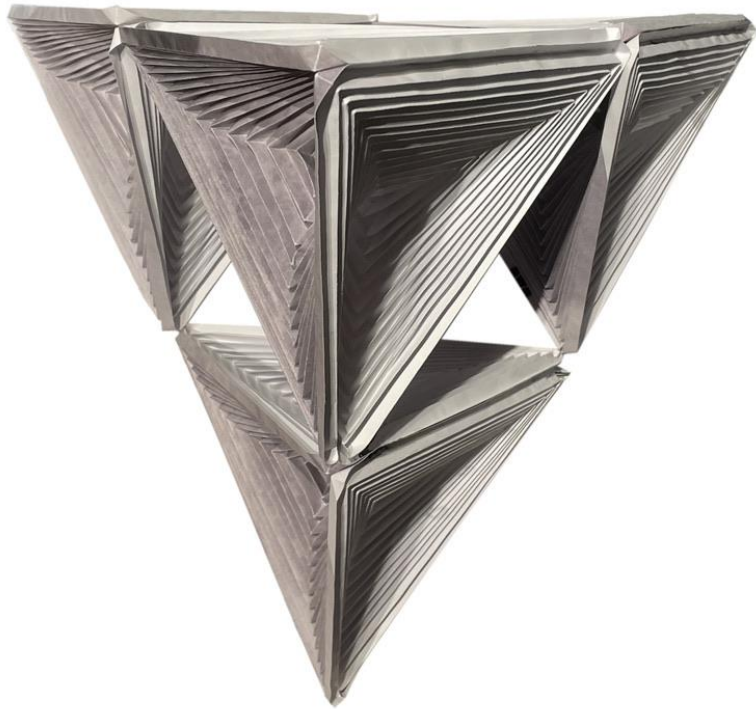
Or an octagon



Or an octagon

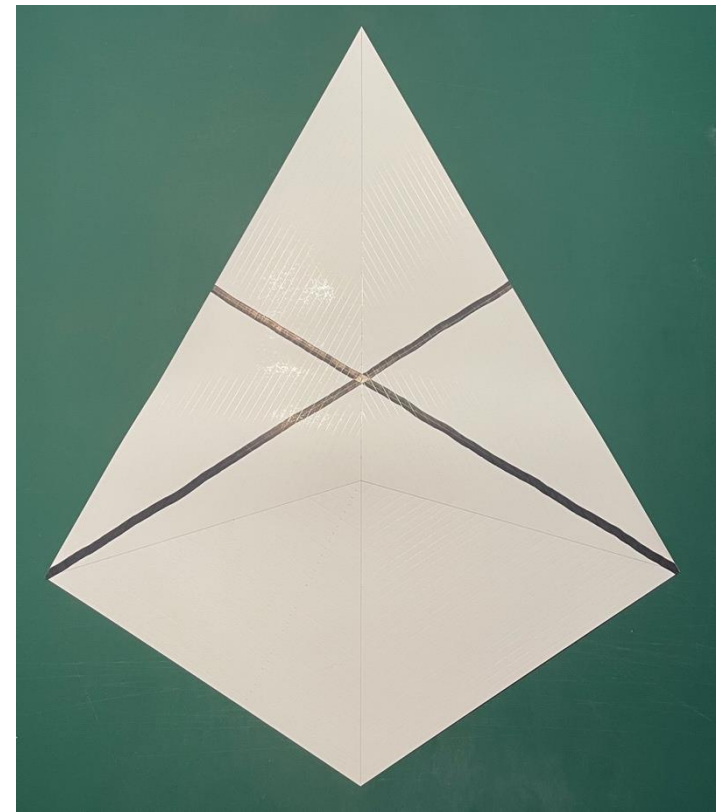
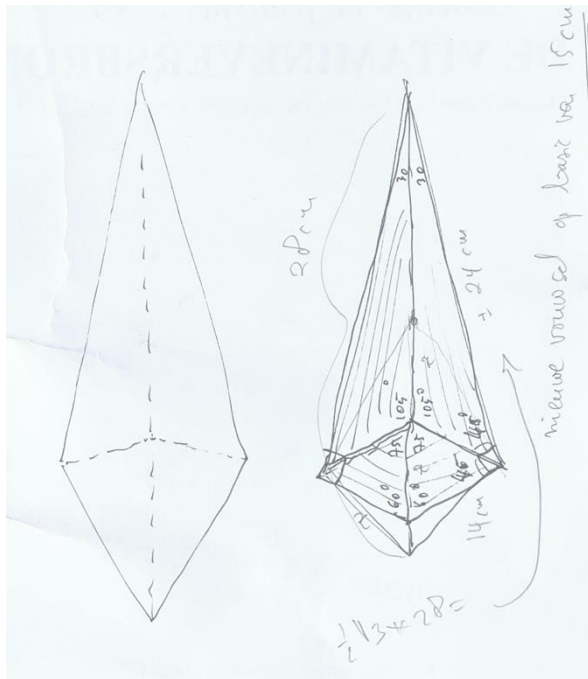


combinations

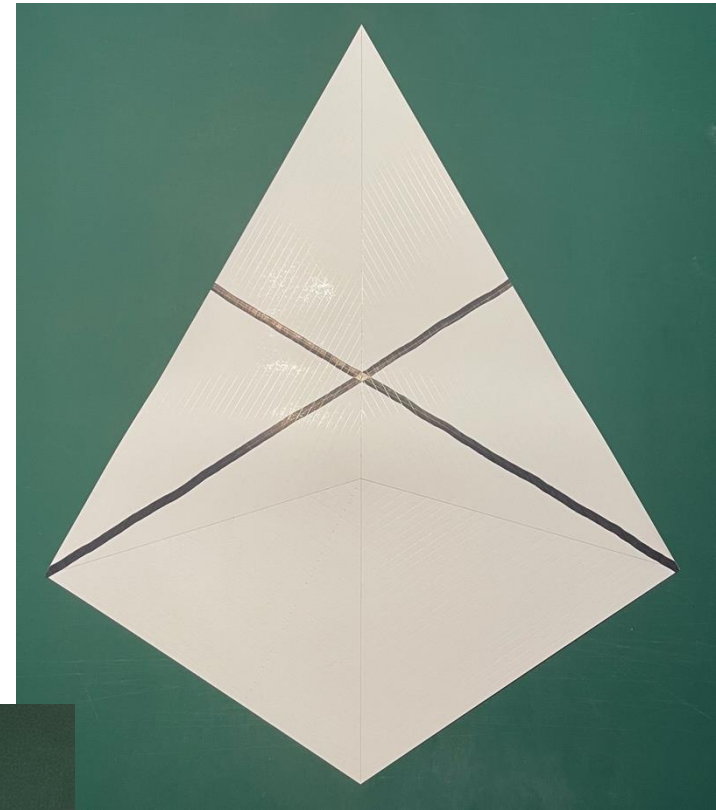
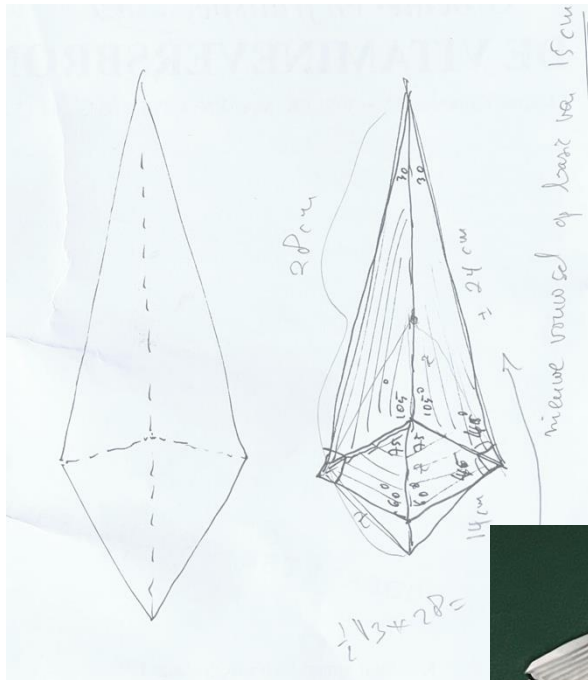


[illegible]

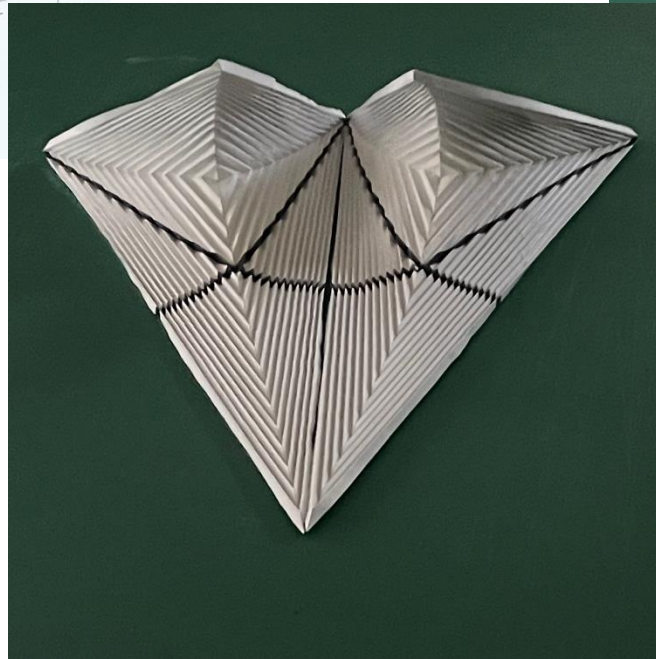
variations



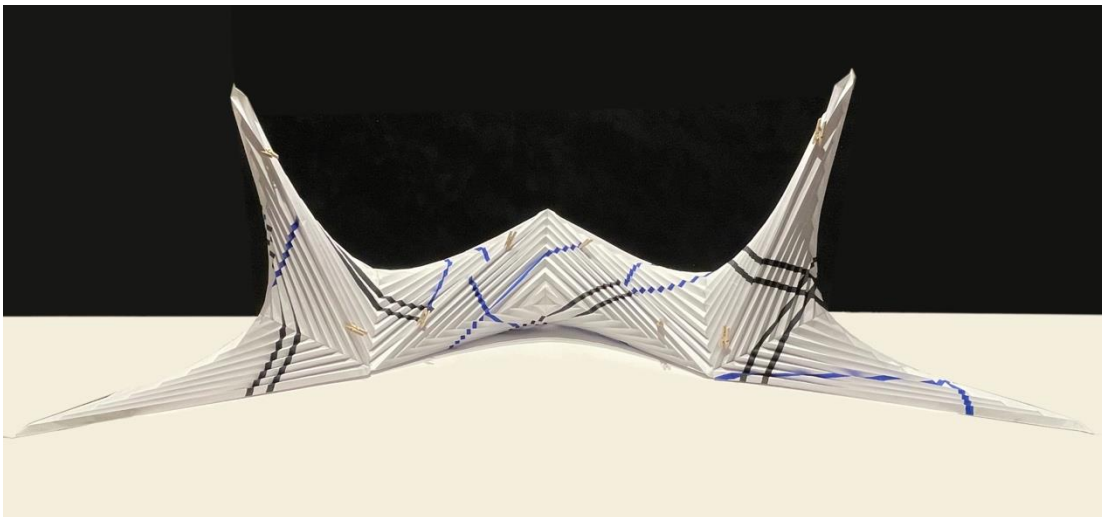
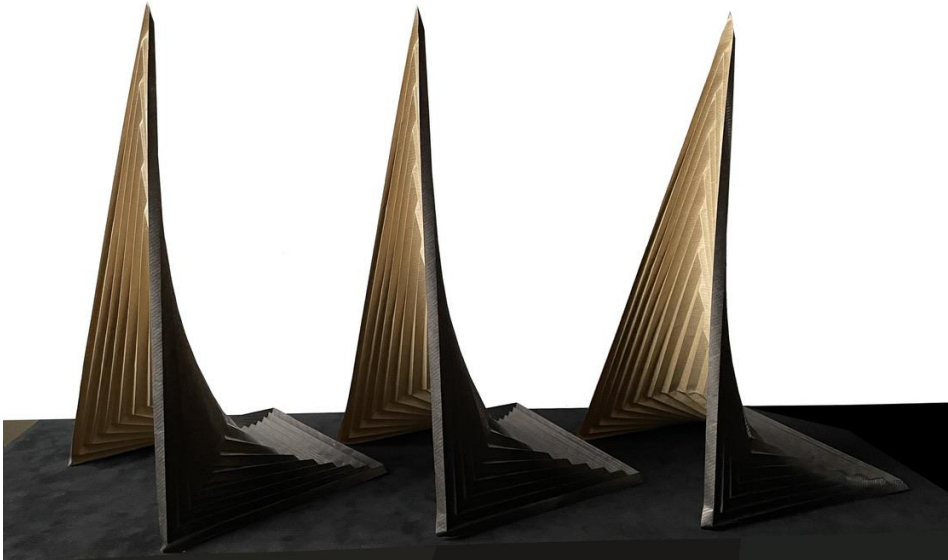
variations



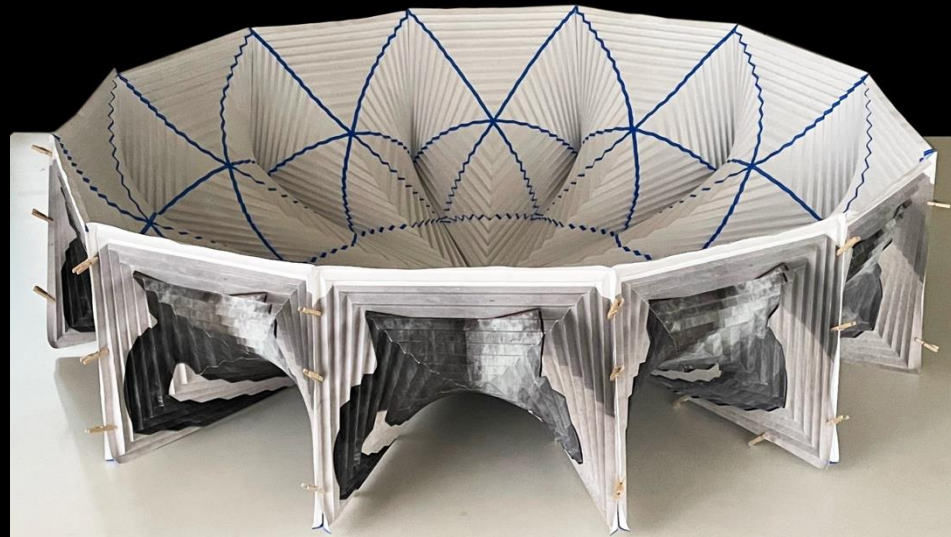
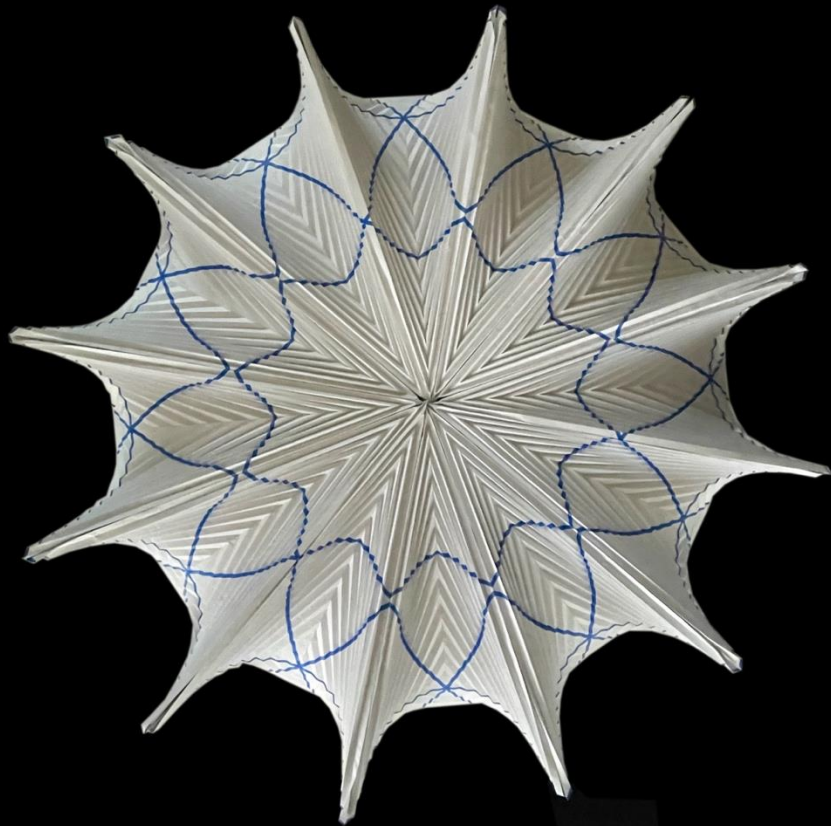
Flat versus non-flat
foldable



Recent work



Recent work



APPLICATIONS

- STENT
- AIRPLANE (wall)
- PANELS (in space)
- SELF FOLDING MATERIALS
- AIR BAGS
- FASHION
- Etcetera



STENT



STENT



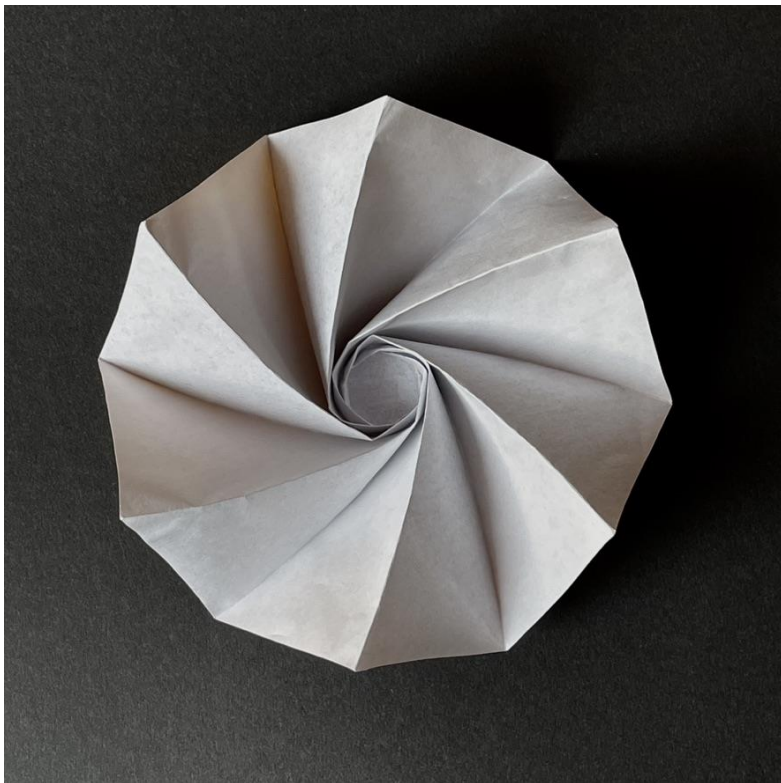
STENT



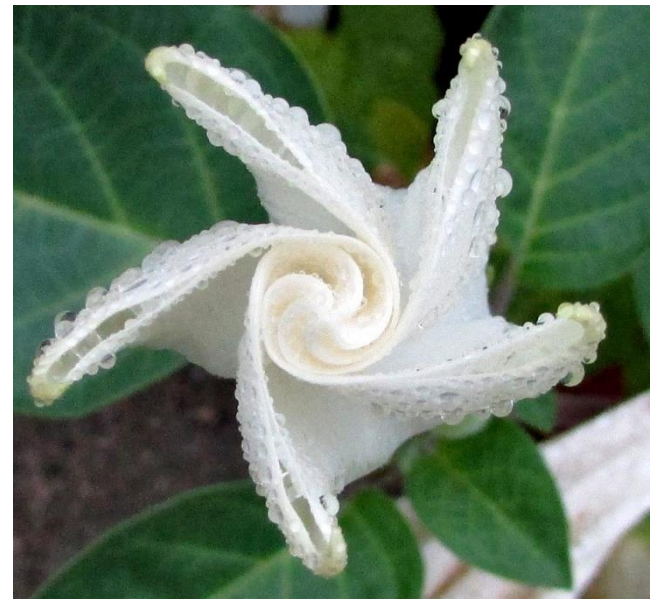
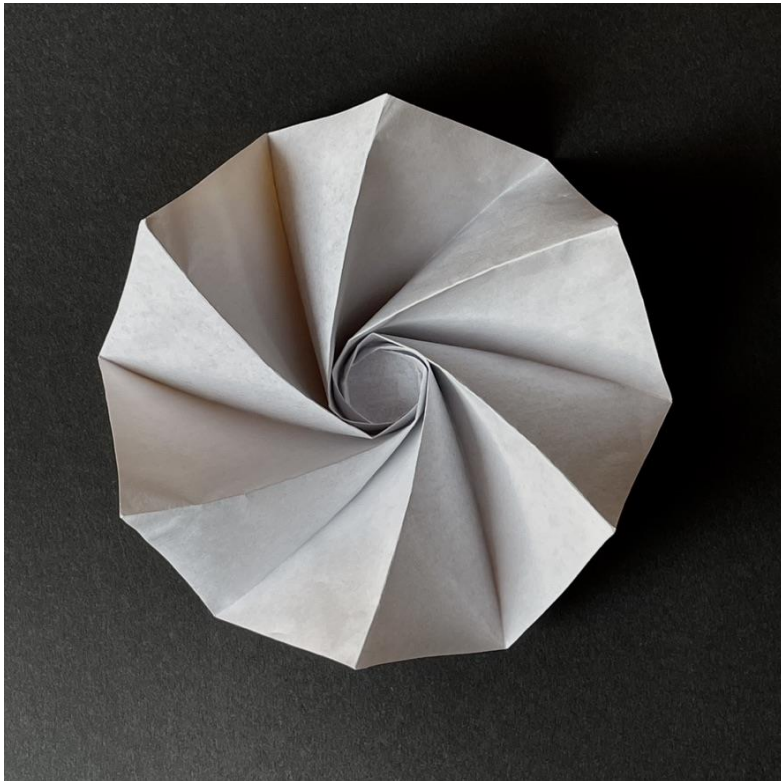
Star-shield NASA



Star-shield NASA



Star-shield NASA



Datura

ARCHITECTURE

- ROOFS
- COLUMNS
- WALLS
- LAMPEKAPS (Klint)



Roof Vitens Zeddam (Olster dakwerken)

ARCHITECTURE

- ROOFS
- COLUMNS
- WALLS
- LAMPEKAPS (Klint)



Roof Vitens Zeddum (Olster dakwerken)



Samira Boon
Theatre
Tilburg

ARCHITECTURE

- ROOFS
- COLUMNS
- WALLS
- LAMPEKAPS (Klint)

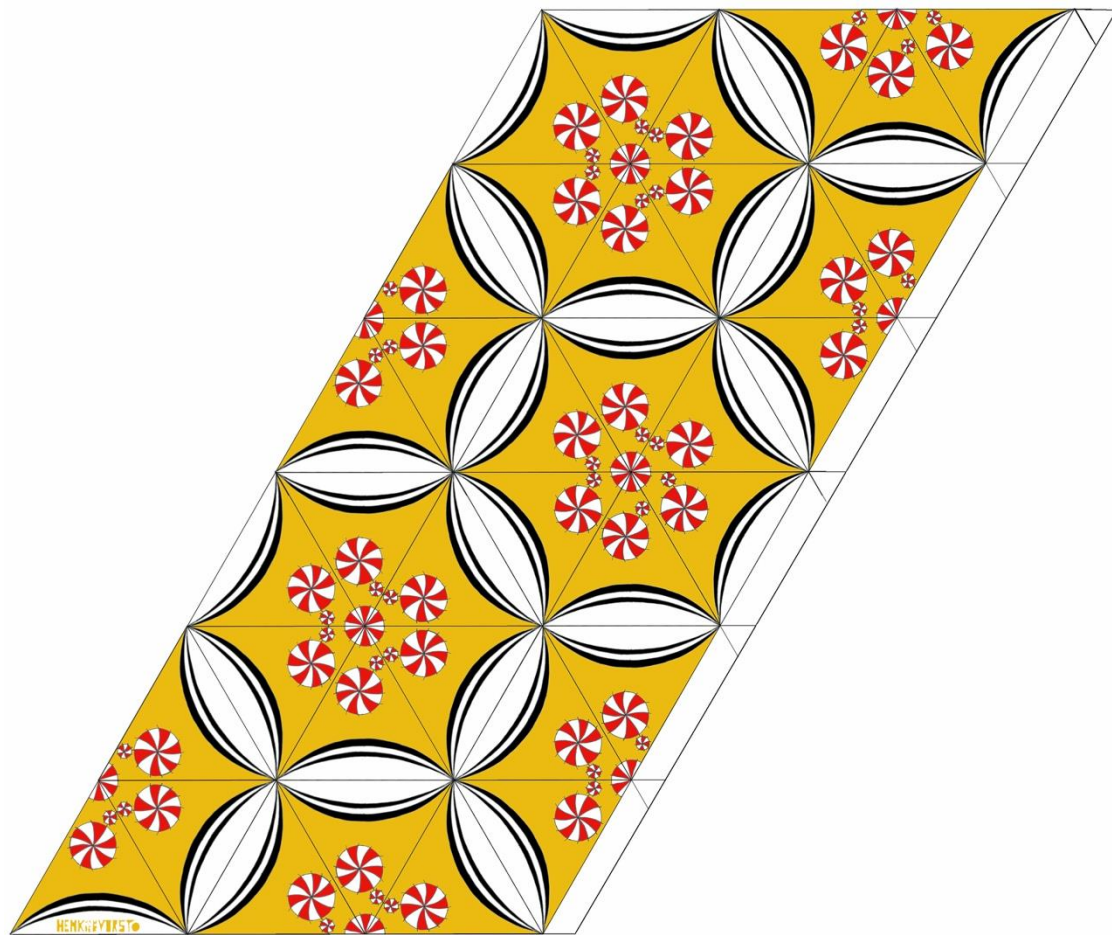


Dak Vitens Zeddam (Olster dakwerken)

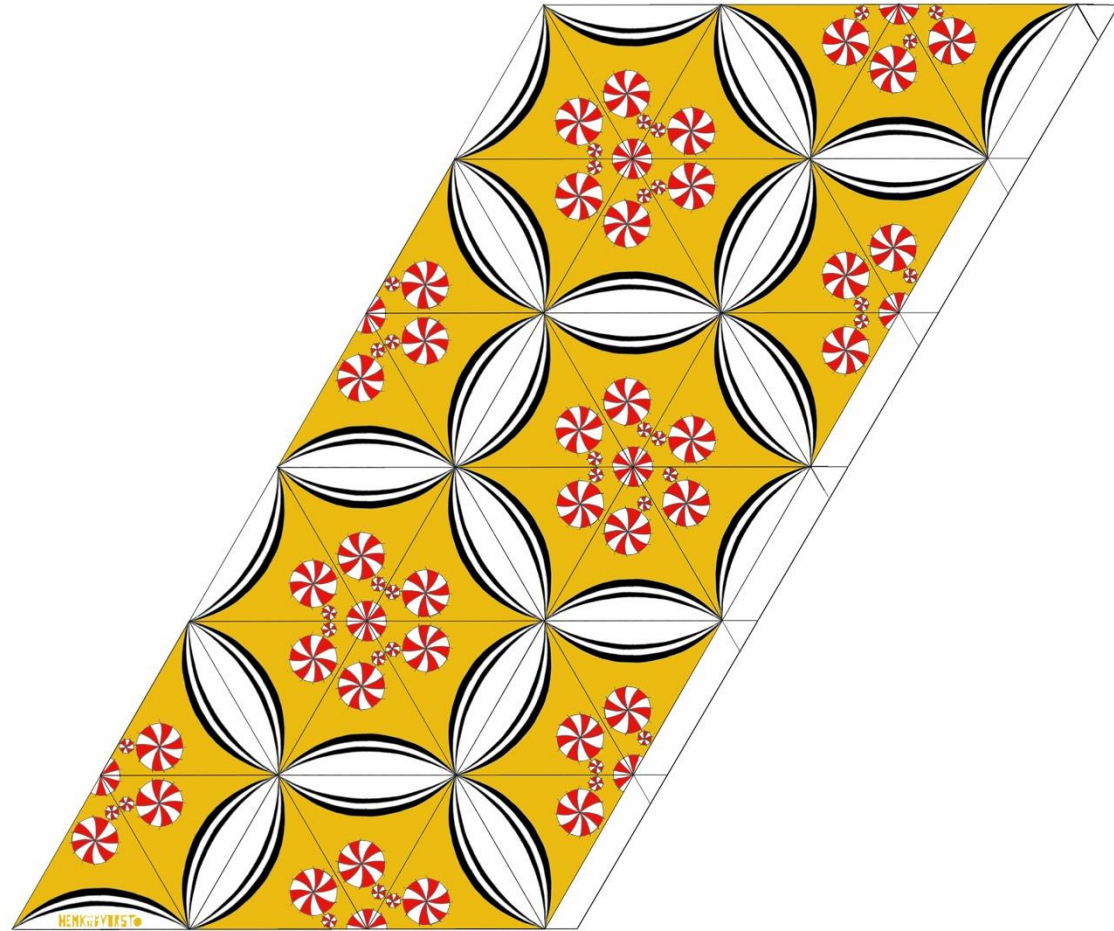


Samira Boon
Theatre
Tilburg

Folding Scheme for Column

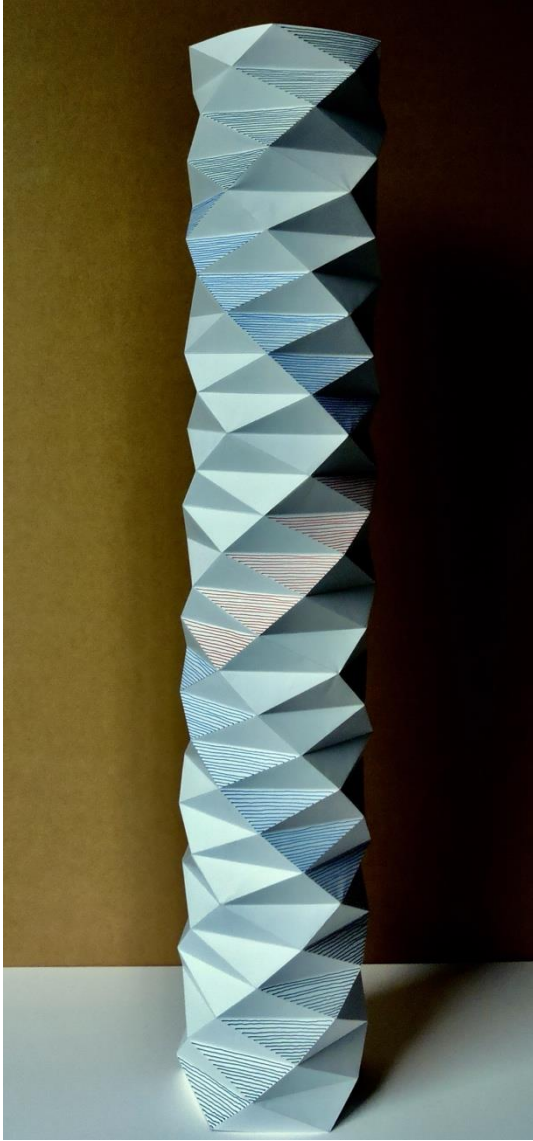


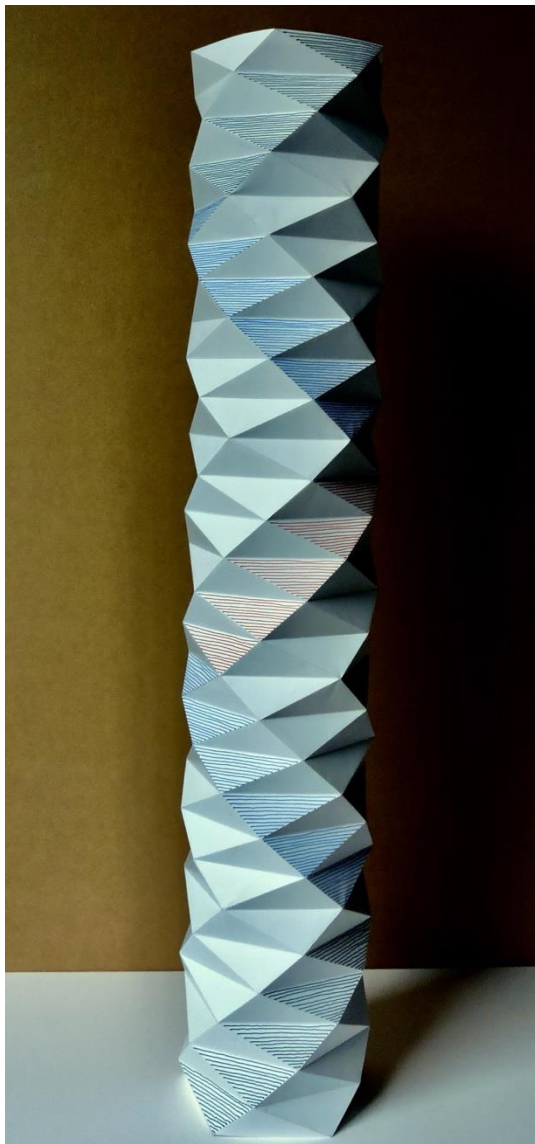
Folding scheme for column









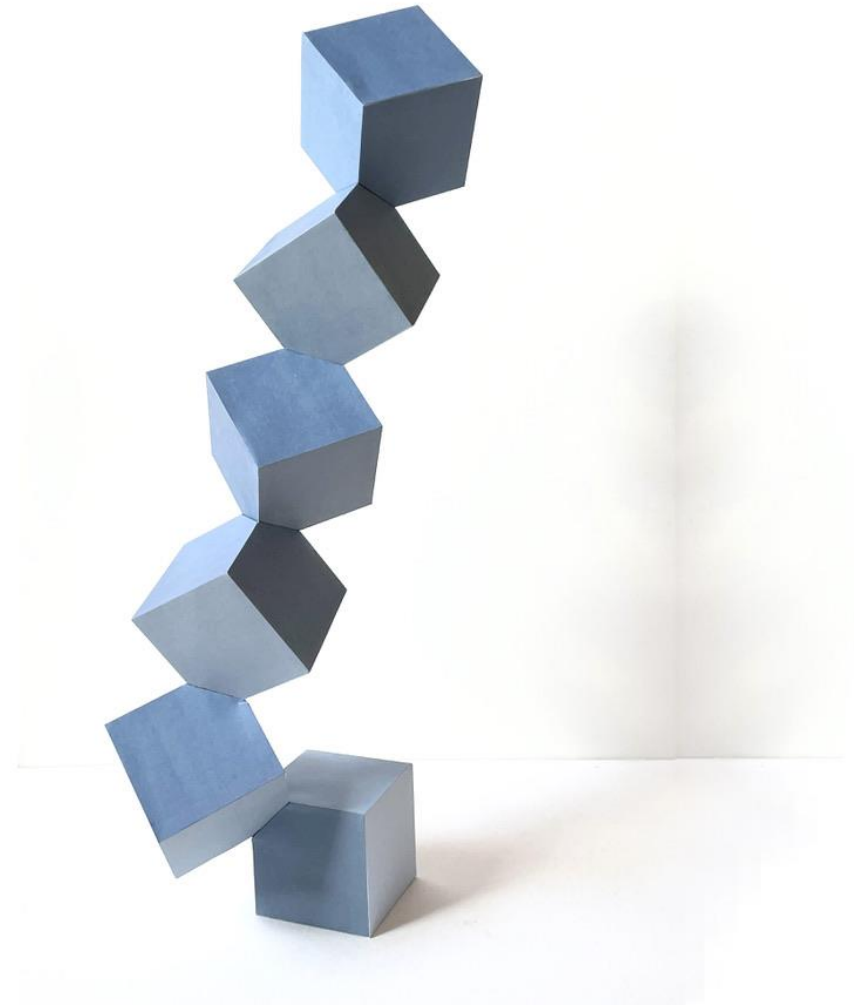




Arata Isozaki Tower, Mito Japan



constructions





Fashion

Iris van Herpen





Fashion

Iris van Herpen

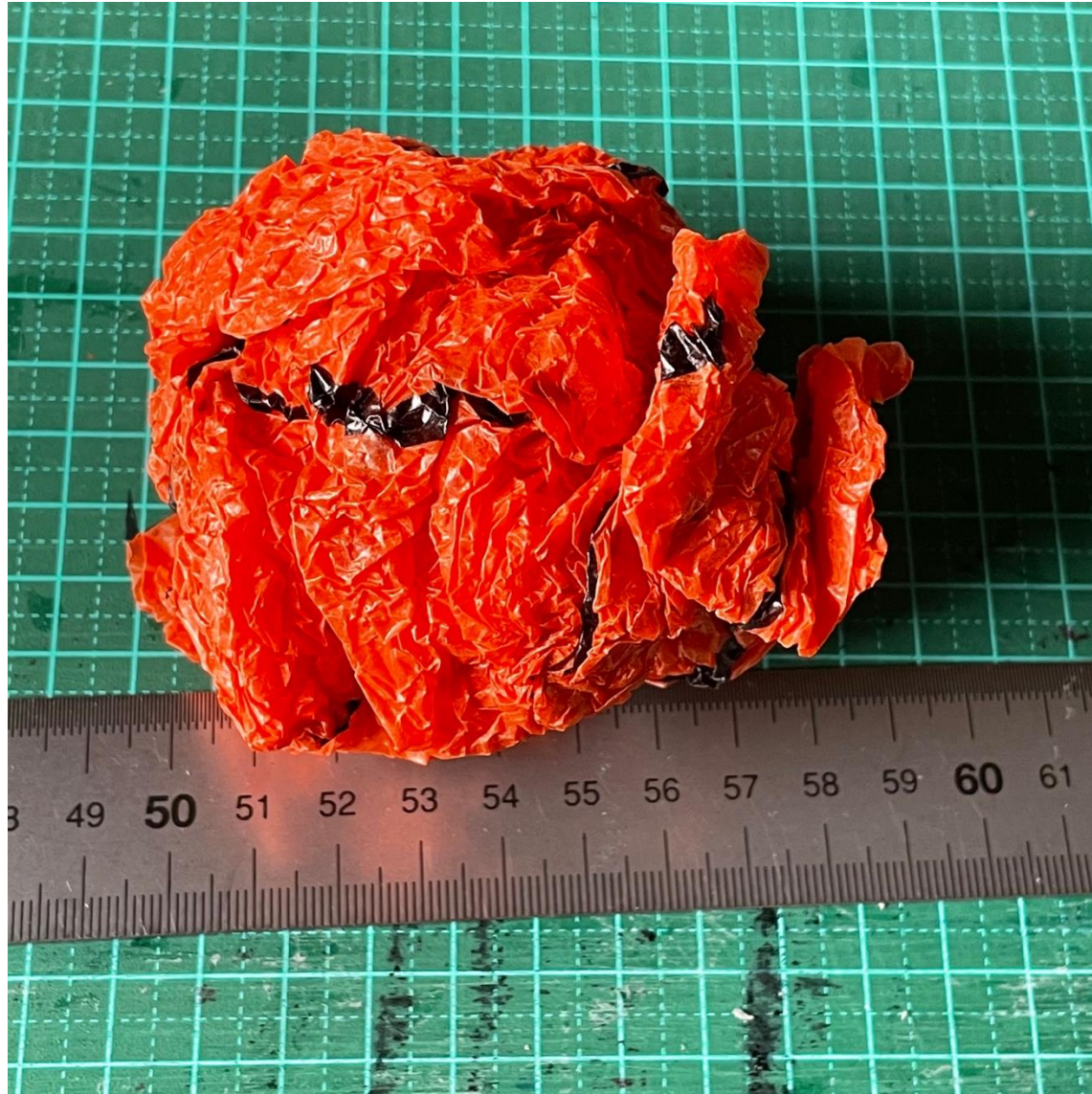


Picture: Chantal Ariens

Crumpling



Crumpling



Crumpling



Crumpling



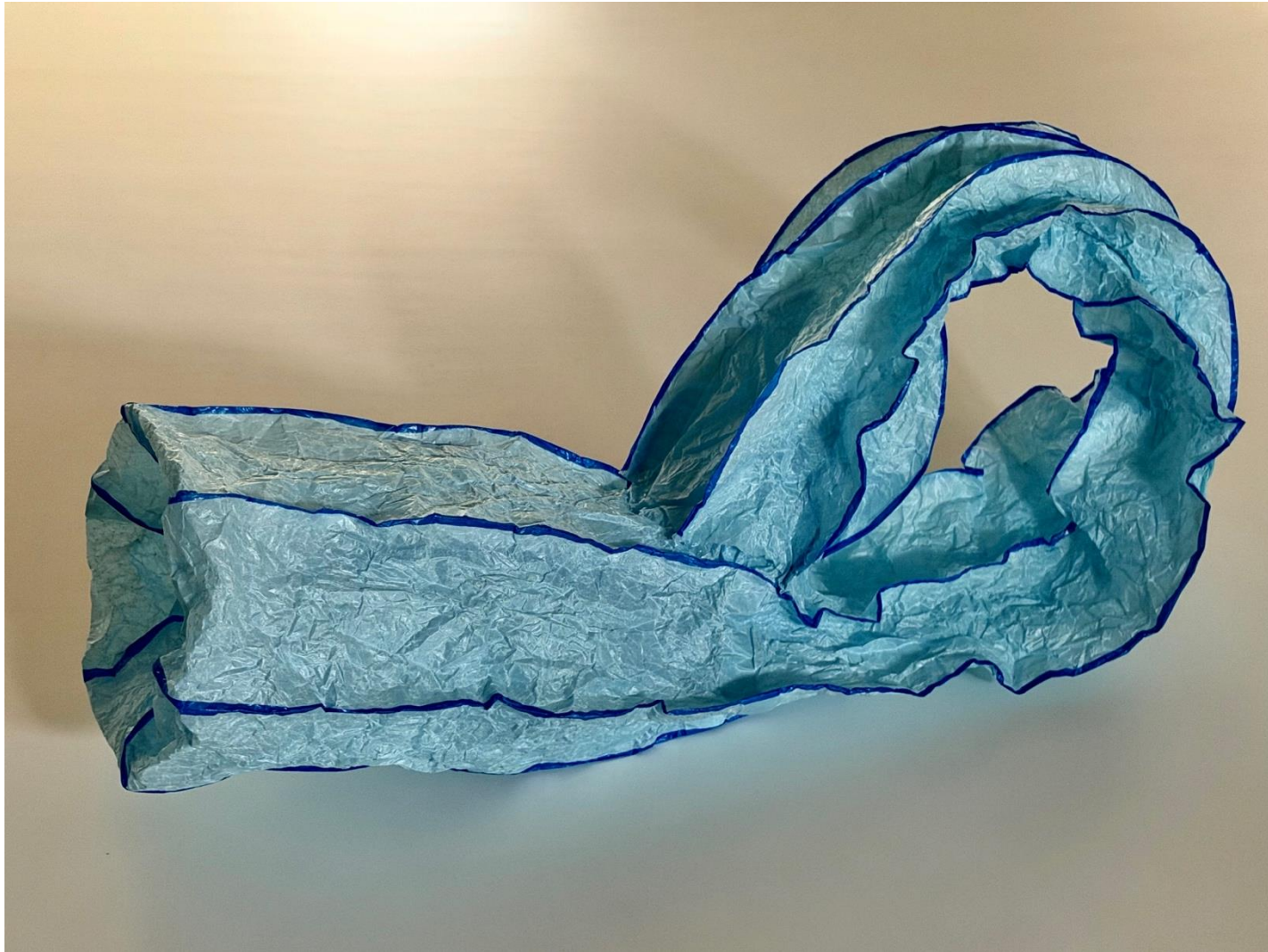
Organic appearance



Crumpled Delft Blue



Blue Klein Bottle



Additional information

Paul Jackson, Complete Pleats

Paul Jackson, Folding Techniques for Designers

Robert Lang, Twists, Tilings, and Tessellations

Eric Gjerde, Origami Tessellations

Ron Resch, Water bomb tessellations, see the internet

and my instruction videos on youtube

That's all folks!