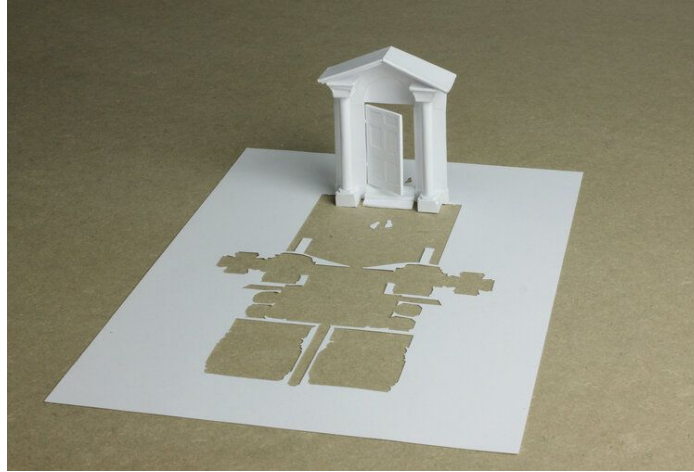
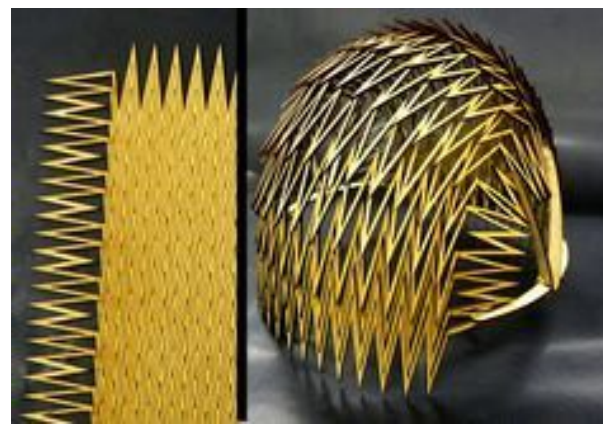
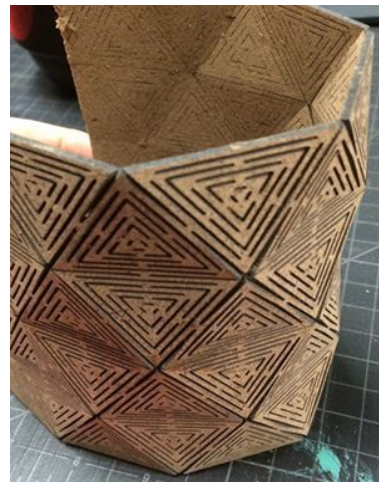
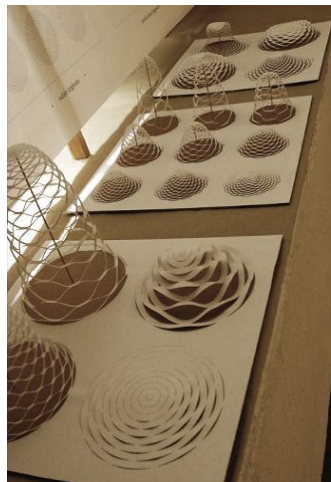


Computer controlled cutting

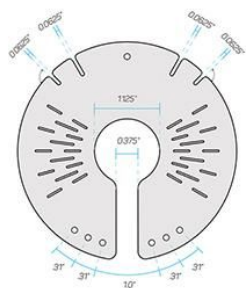
# Wood, cardboard and paper

- Origami
- Kirigami
- Kerfing

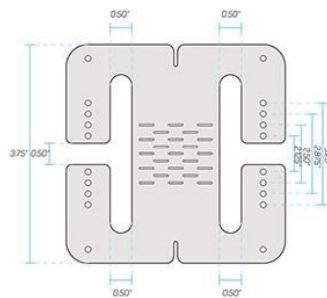




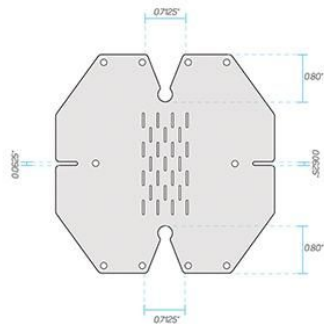
PROBE#1



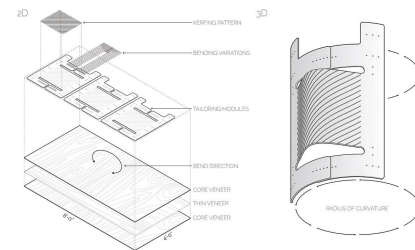
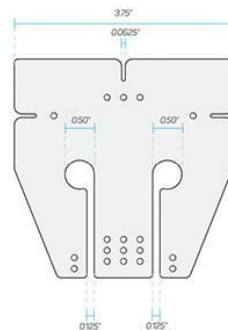
PROBE#2



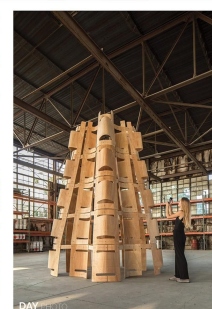
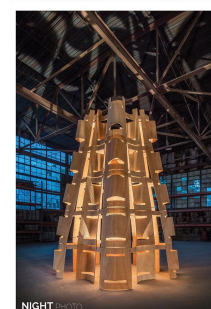
PROBE#3



PROBE#4



MODULAR LOCAL PARAMETERS & MATERIAL CONSTRAINTS



NIGHT PHOTO

DAY PHOTO





Kert Banding (Corte Plegado)

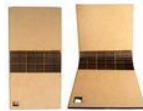
Problemas de distintos tipos de corte y curvatura, indicados para ver relación entre sus variables. (Distancia de la línea, separación entre líneas, cantidad de columnas, etc.)



3 Columnas



Flexibilidad: Alta. Aligero: moderado a alto.  
Este corte es de 0.5 mm de grosor con una separación entre líneas de 1 mm, dividido en 3 columnas equidistantes e intercaladas.



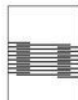
3 Columnas



Flexibilidad: Alta. Aligero: moderado a alto.  
Este corte es de 1 mm de grosor con una separación entre líneas de 1 mm, dividido en 3 columnas equidistantes e intercaladas.



Intercalado



Flexibilidad: Media. Aligero: moderado a alto.  
Este corte es de 1 mm de grosor con una separación entre líneas de 2 mm. Una línea es intercalada y otra completa con lazo los límites de la muestra.



Intercalado Mayor Superposición



Flexibilidad: Alta. Aligero: moderado a alto.  
Este corte es de 1 mm de grosor con una separación entre líneas de 1 mm. Una línea es intercalada y otra completa con lazo los límites de la muestra.



Intercalado Menor Superposición

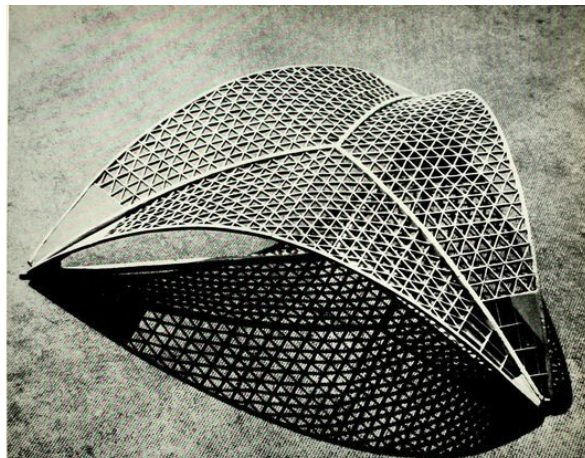


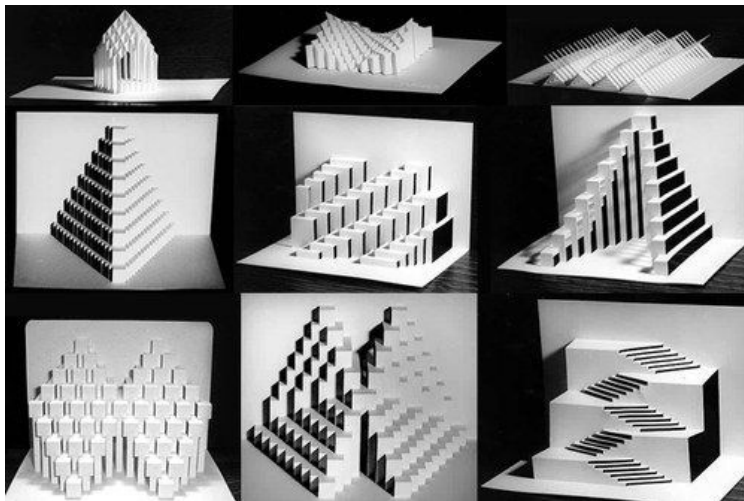
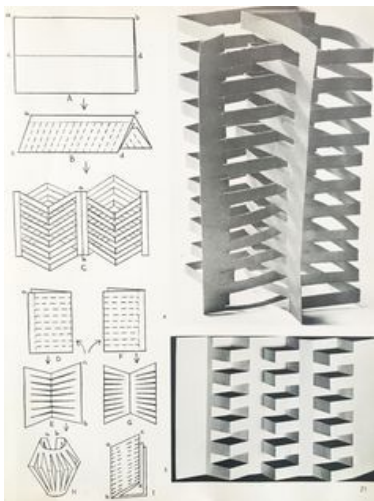
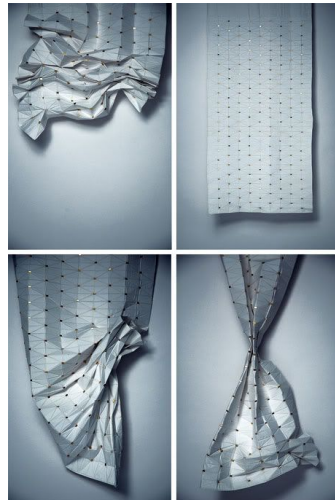
Flexibilidad: Alta. Aligero: moderado a alto.  
Este corte es de 1 mm de grosor con una separación entre líneas de 1 mm, dividido en 3 columnas equidistantes e intercaladas.

## Flexibilidad de Pandeo

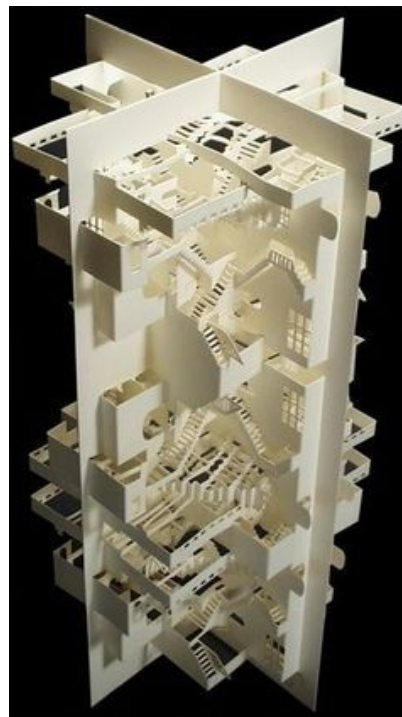
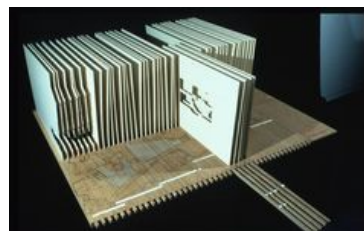


Figura corte plegado: flexibilidad alta. Aligero al no delimitarse, mejor al ser sometido a fuerza "laterales" (línea 4) pando, a presentar buena resistencia para soportar la compresión y la expansión.  
[1] Este corte es de 1 mm de grosor con una separación entre líneas de 1 mm, dividido en 3 columnas equidistantes e intercaladas. Presenta buena flexibilidad para cambiar el ángulo y mantenerlo a través.  
[2] Este corte es de 1 mm de grosor y con una separación entre líneas de 1 mm, pero con mucha superposición entre ellas, también presenta buena flexibilidad para cambiar el ángulo de giro.  
[3] También muestra bien la fuerza y la expansión de sus cortes.  
[4] Se comprime en horizontal.  
[5] Puede ser forzado en mayor fuerza a una doble curva.







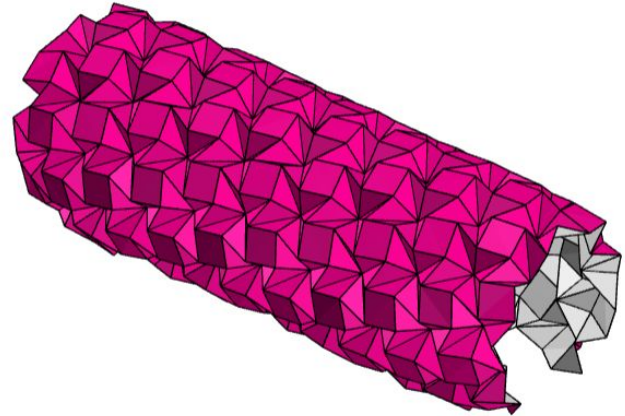
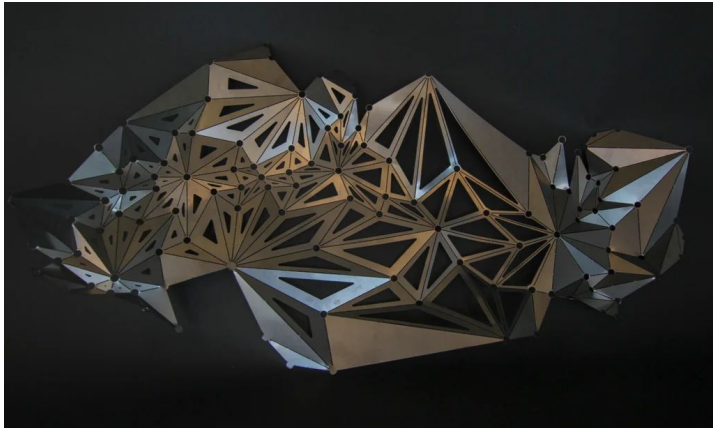


# Origami

[Origami Simulator](#)

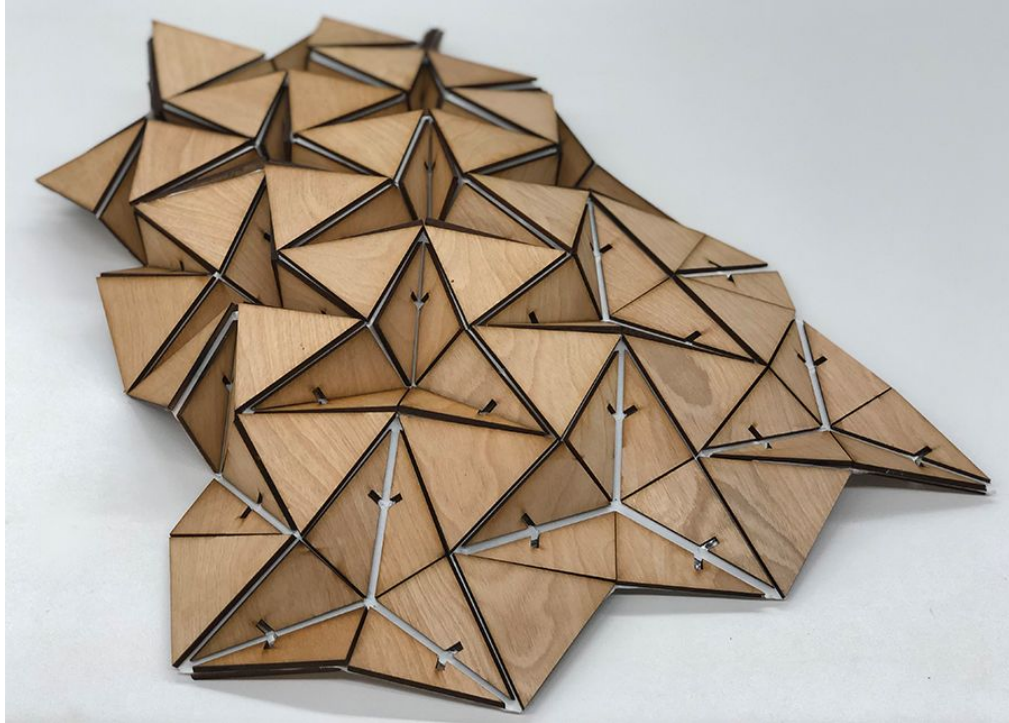
[Computational Origami](#)

[Algorithmic Origami: an Exploration of Expressive Form in Sheet Metal](#)



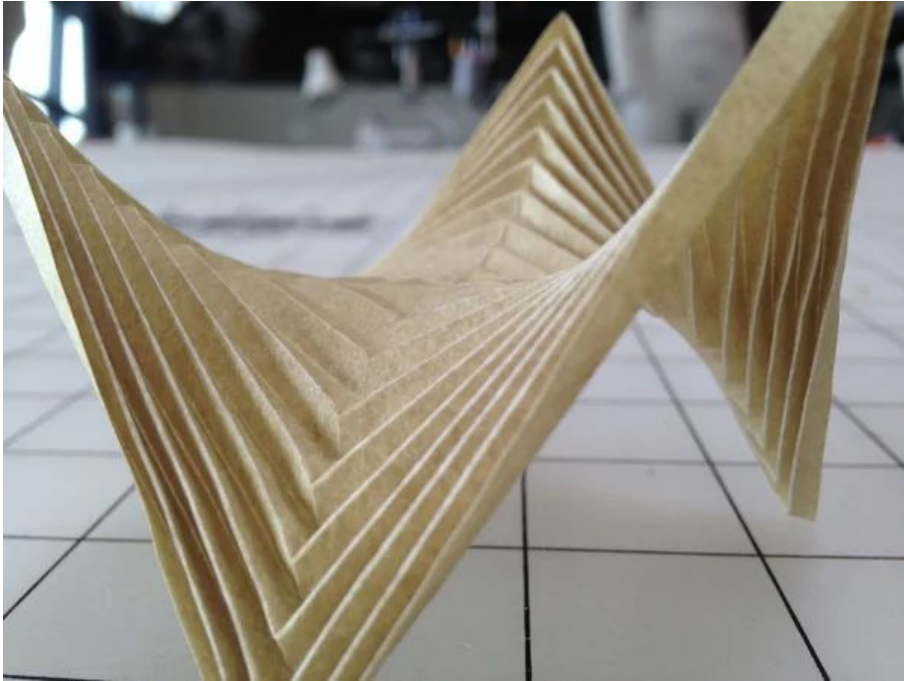
# Origami

<http://fab.cba.mit.edu/classes/863.18/Harvard/people/lara/week1.html>



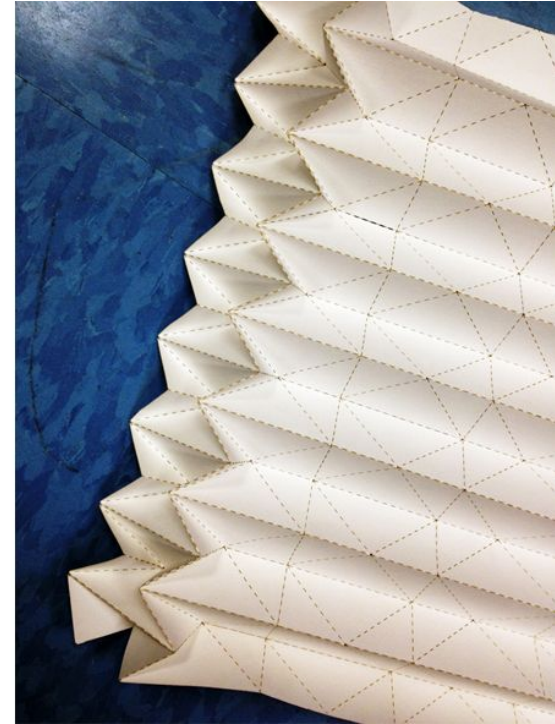
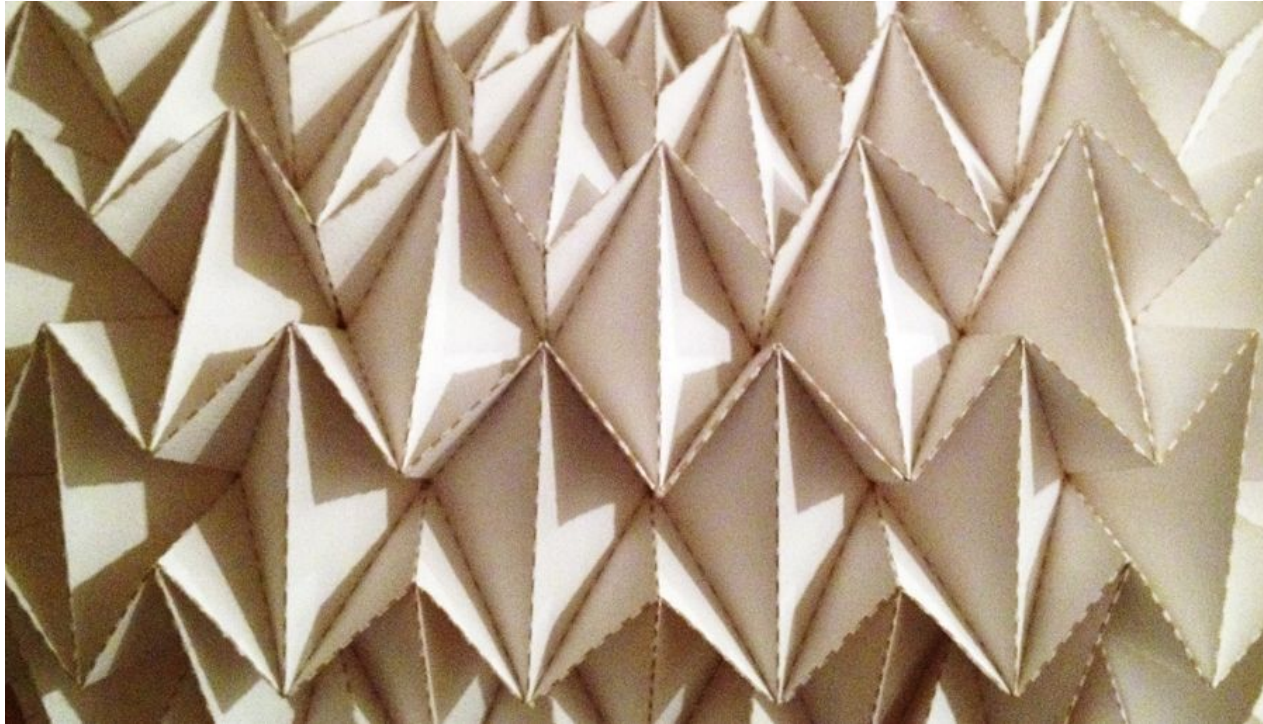
# Origami

<https://www.instructables.com/Laser-Etched-Paper-for-Folding-Complex-Forms/>



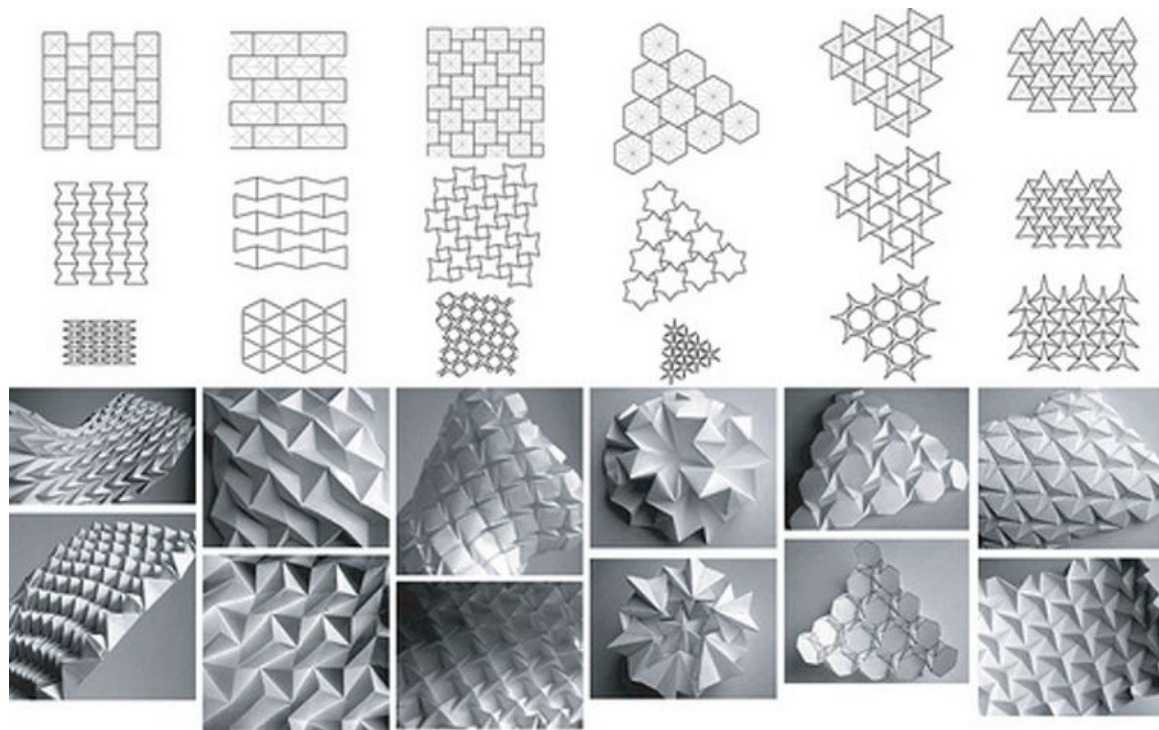
# Origami

[Muse: Origami Laser Cut Prototypes](#)



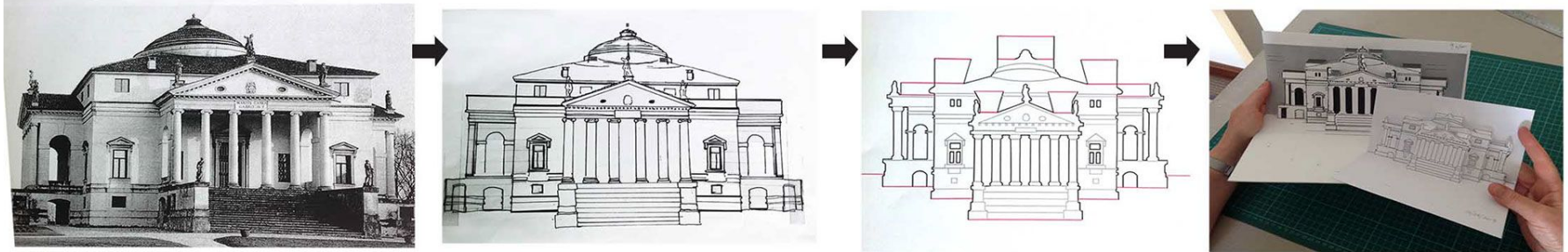
# Origami

[superfold final project](#)

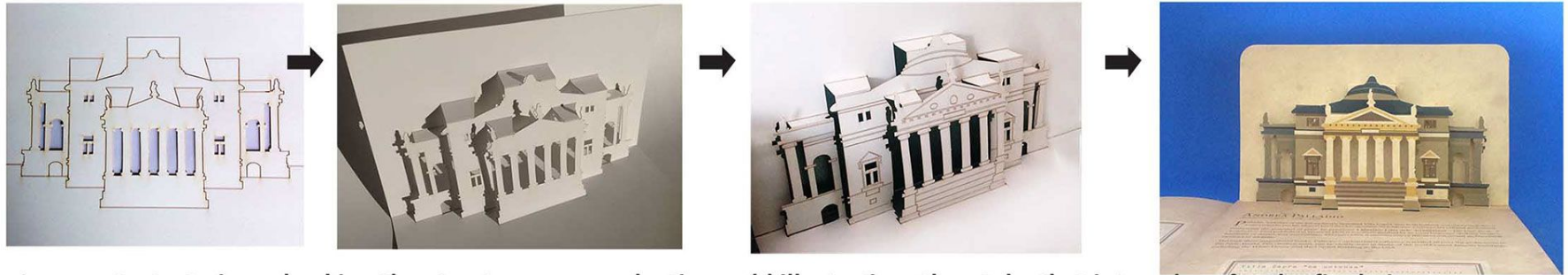


# Kirigami

PORIGAMI - cards



Start with a photograph, Translate that into a drawing and divide into layers, create the line artwork for the shape, make mock ups

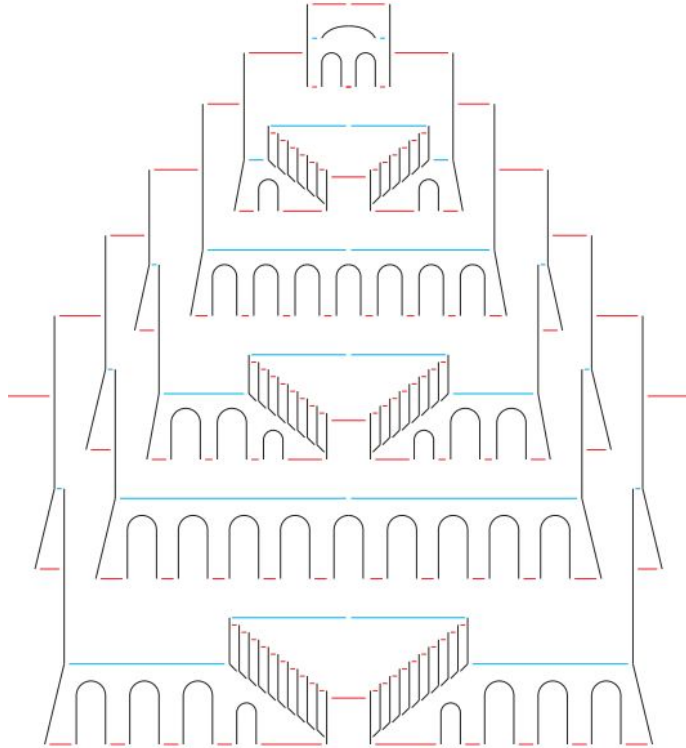


Laser cut a test piece checking the structure pre-production, add illustration, then take that into colour for the final piece.  
It is printed, die cut to shape, hand assembled.

Jean Kropper Paper engineer 2016

Taj Mahal - example

# Kirigami



# Kirigami, Origami

[origamic architecture - free pdf downloads](#) - example

[Math Monday: Cut and Fold Escher - Make:](#) - example

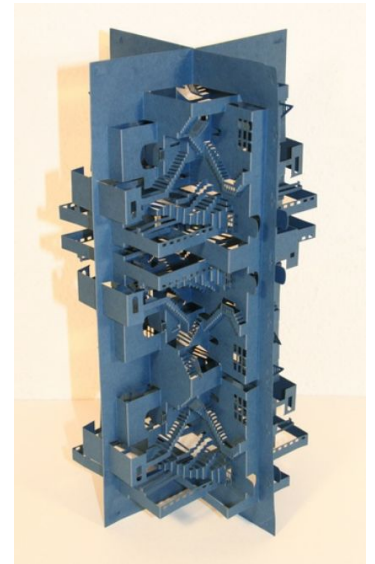
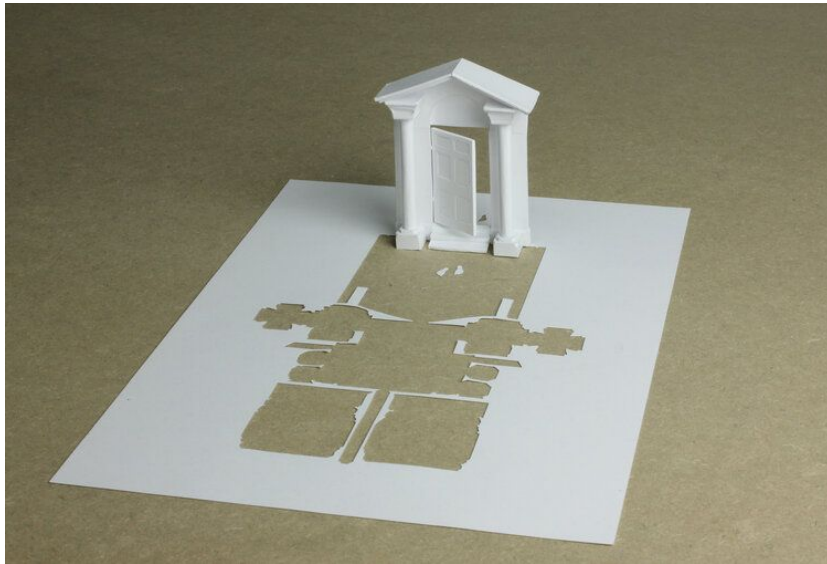
[Ullagami How-To - geometric kirigami pop-ups](#) - how to

[Kirigami Simple Escher Staircase : 8 Steps - Instructables](#) - how to

[A4 papercuts — PETER CALLESEN](#) - works

[Ingrid Siliakus](#) - works

[Joseph Choma \(@josephchomadesign\)](#) • [Instagram photos and videos](#) - works



# Kerfing



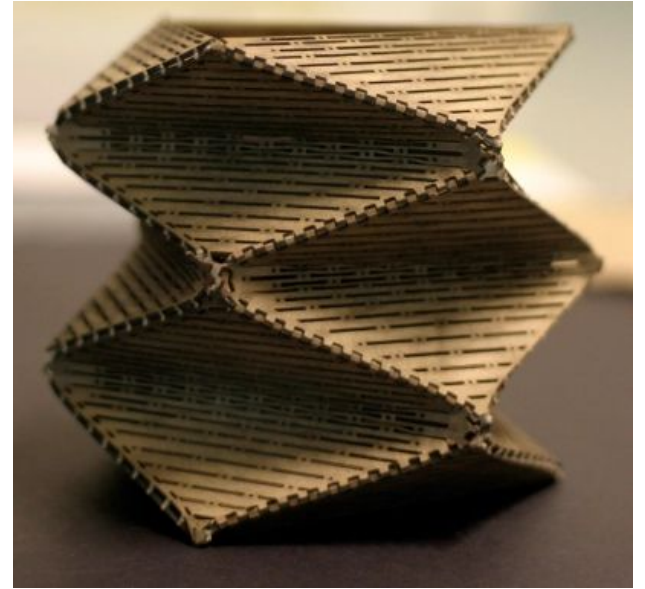
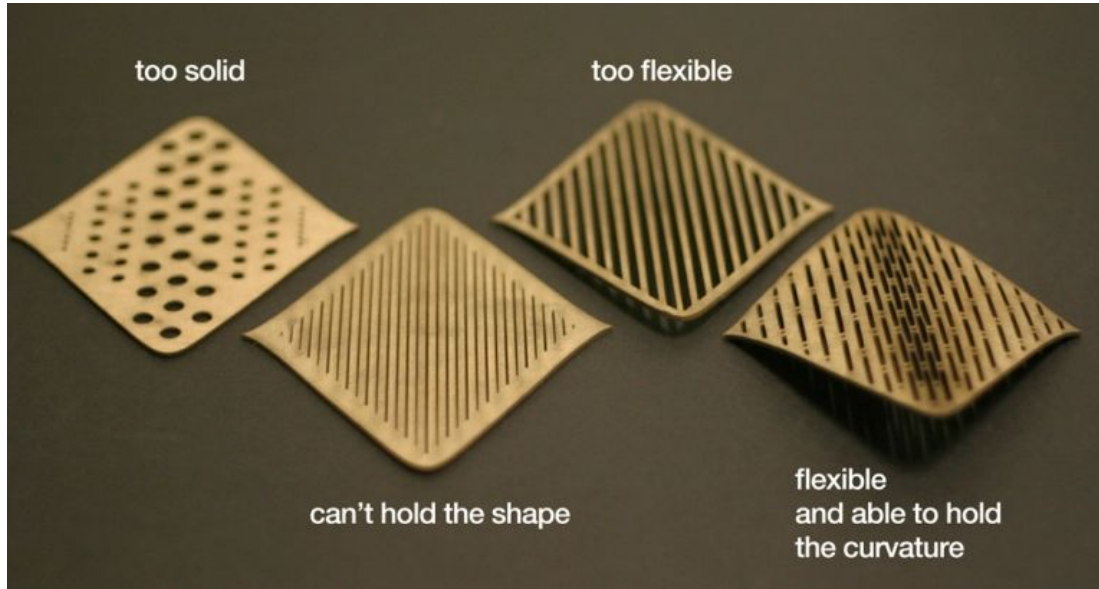
[Files and tests](#)

[Bezalel's pavilion website](#)

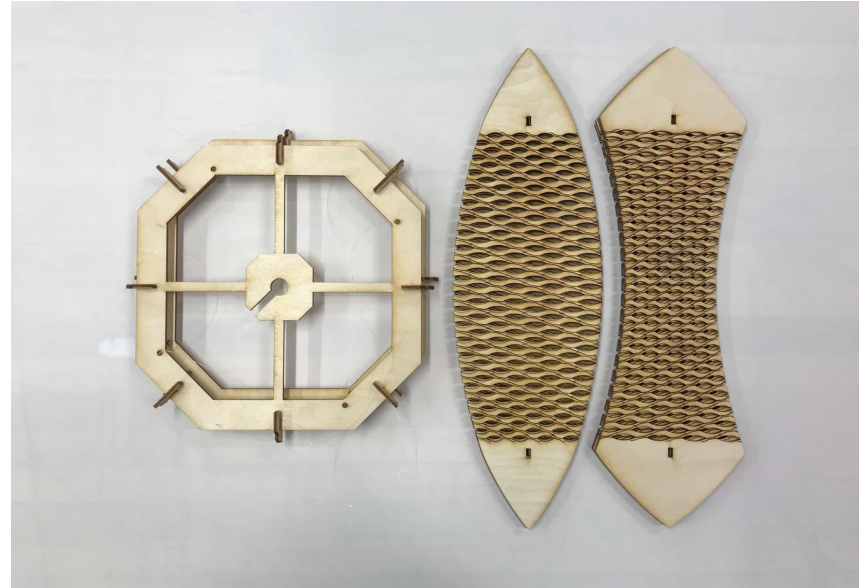
[Student project using kerfing](#)



# Kerfing



# Kerfing



<http://fab.cba.mit.edu/classes/863.17/EECS/people/ekohrs/week1/index.html>

# Kerfing



[https://www.behance.net/gallery/85265069/Wood-Kerfing?tracking\\_source=search\\_projects%7Ckerfing](https://www.behance.net/gallery/85265069/Wood-Kerfing?tracking_source=search_projects%7Ckerfing)

# Kerfing

Google search results for "kerfing files". The search bar shows "kerfing files" and the "Images" tab is selected. The results are displayed in a grid of 24 images, each with a source attribution.

**Search Bar:** kerfing files

**Navigation:** All, Images, Videos, News, Books, More, Tools, Collections, SafeSearch

**Filters:** laser kerf bending, laser cutter, laser cutting, kerf cut, kerf tool, bend, plywood, woodworking, curved, double curved, bending wood, jig

**Image Grid:**

- Creative Fabrica - In stock: Thickness Kerf Tool - Laser Cut File ...
- martin breuer: kerf bending patterns - produktentwicklung
- martin breuer: kerf bending patterns - ...
- Parametric House: Kerf Bending | Parametric Hou...
- Core77: Adventures in Laser Kerf Bending - Core77
- LightBurn Software Forum: Kerf testing file - Finished creations ...
- Engraving-supplies.co.uk: Kerf cutting engravable acrylic and ...
- Behance: Kerfing Projects | Photos, videos ...
- Etsy: Kerf Tool Test Fit Guides for...
- psanno - WordPress.com: Kerf | psanno
- Hackaday: Kerf Bending | Hackaday
- Rockler: Bending Wood Part I - Kerf Bending
- Creative Fabrica - In stock: Thickness Kerf Tool - Laser Cut File ...
- Etsy: Kerfing - Etsy
- Etsy - In stock: Kerf Test Cut File for L...
- Pinterest: 110 Kerfing ideas | flexible wood ...
- psanno - WordPress.com: Kerf | psanno
- Cuminad: Kerf bending: ruled double curved ...
- Pinterest: 50 Kerfing ideas | digital fabricati...
- bestia.io: Kerf : what is it? why is ...
- psanno - WordPress.com: Kerf | psanno

# Wood, cardboard and paper

Tips and things to keep in mind:

- File type DXF 2007. Make sure it's perfect! Otherwise it's a waste of money time and material
- Material sheet's thickness and its durability
- Different colours for layers

