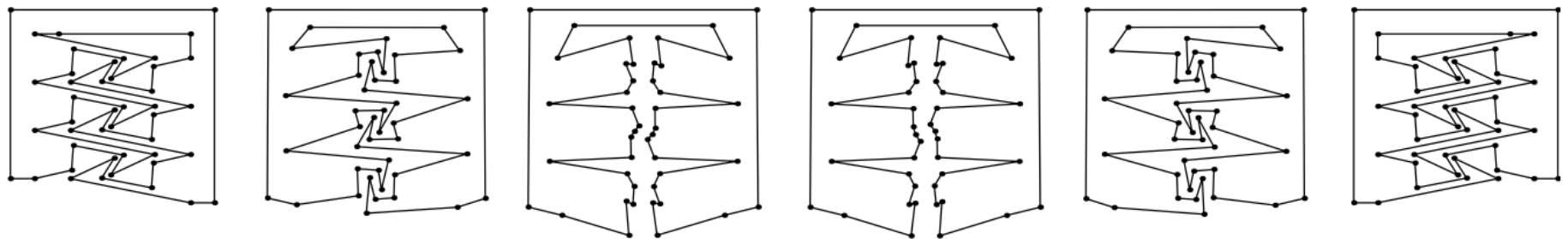
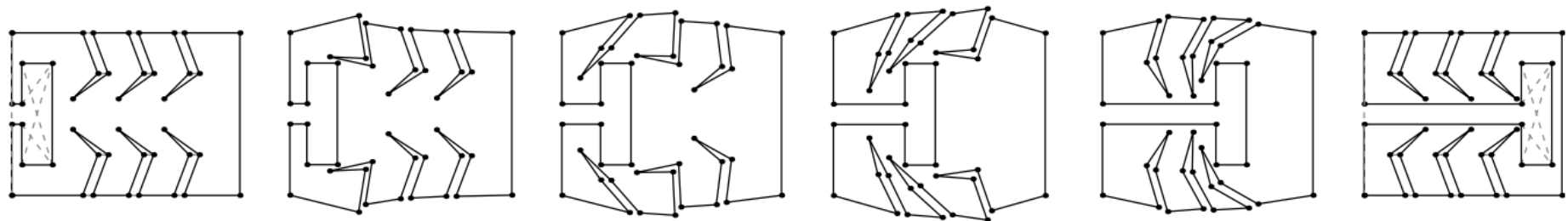
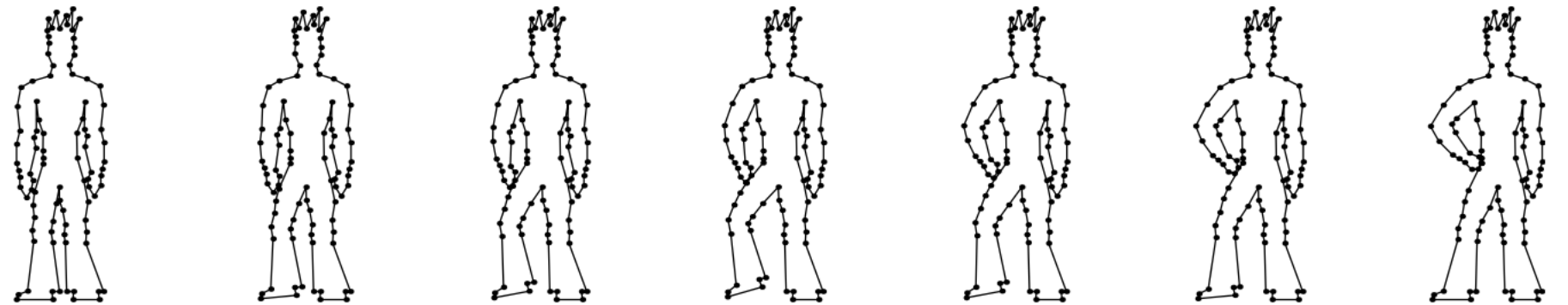
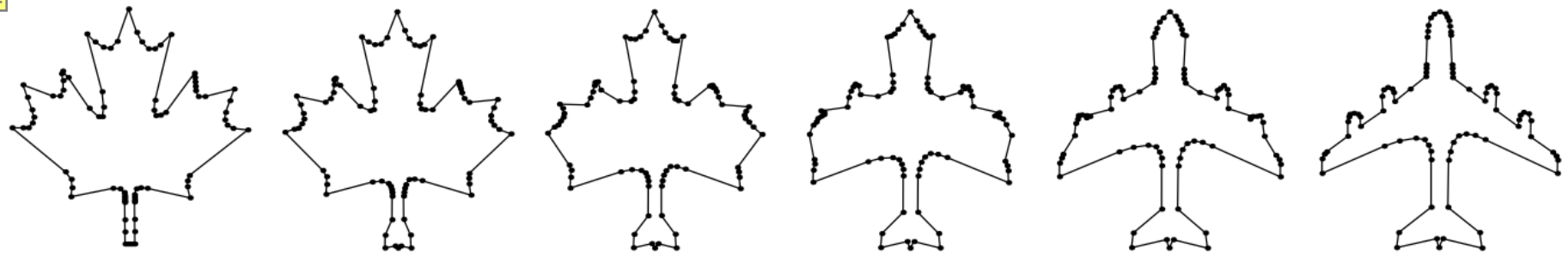




Programmable Matter by Folding

multiple shapes, compound folds



[Iben, O'Brien, Demaine 2006/2009]

NATURE SERIES.

HOW TO DRAW A STRAIGHT LINE;

A

LECTURE ON LINKAGES.

BY

A. B. KEMPE, B.A.,

OF THE INNER TEMPLE, ESQ.;
MEMBER OF THE COUNCIL OF THE LONDON MATHEMATICAL SOCIETY;
AND LATE SCHOLAR OF TRINITY COLLEGE, CAMBRIDGE.

WITH NUMEROUS ILLUSTRATIONS.



MACMILLAN AND CO.
1877.

The Right of Translation and Reproduction is Reserved.

187. 9. 16. Digitized by Google

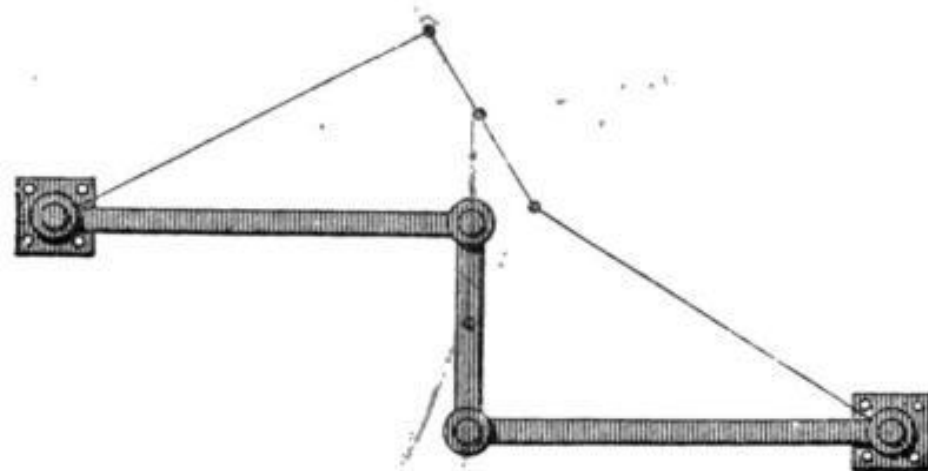


Fig. 2.

Watt 1784

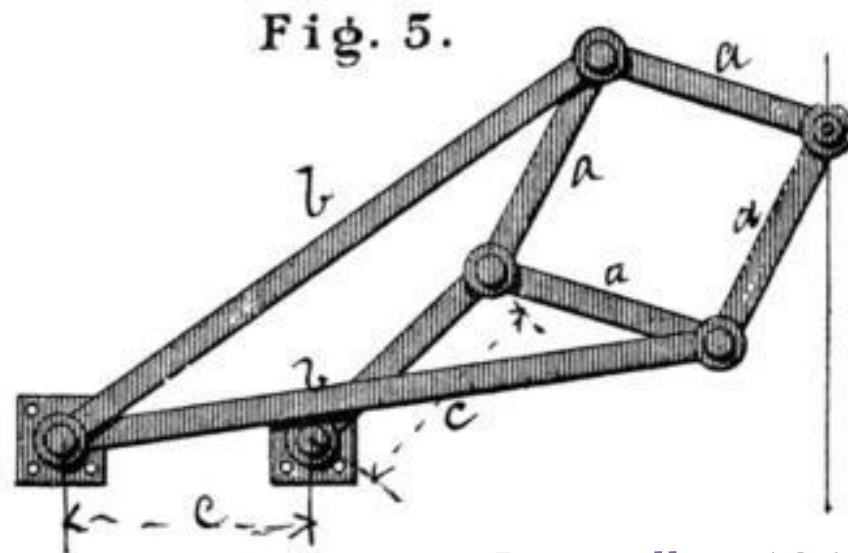


Fig. 5.

Peaucellier 1864

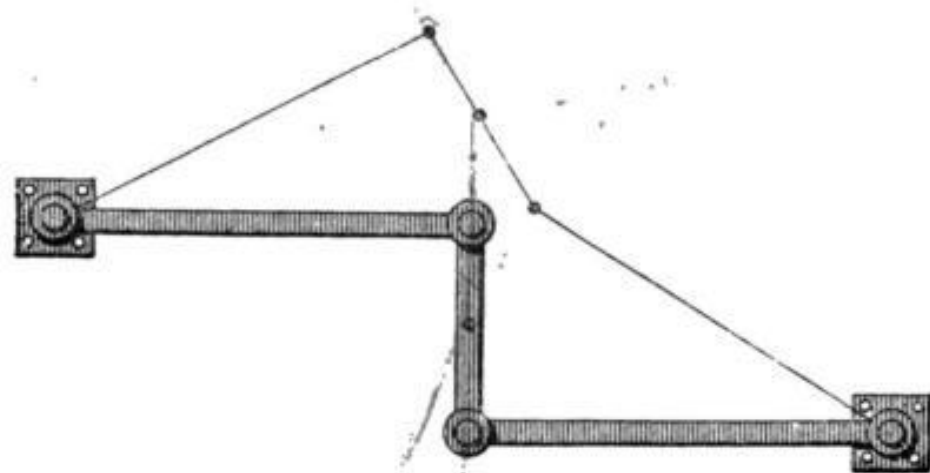
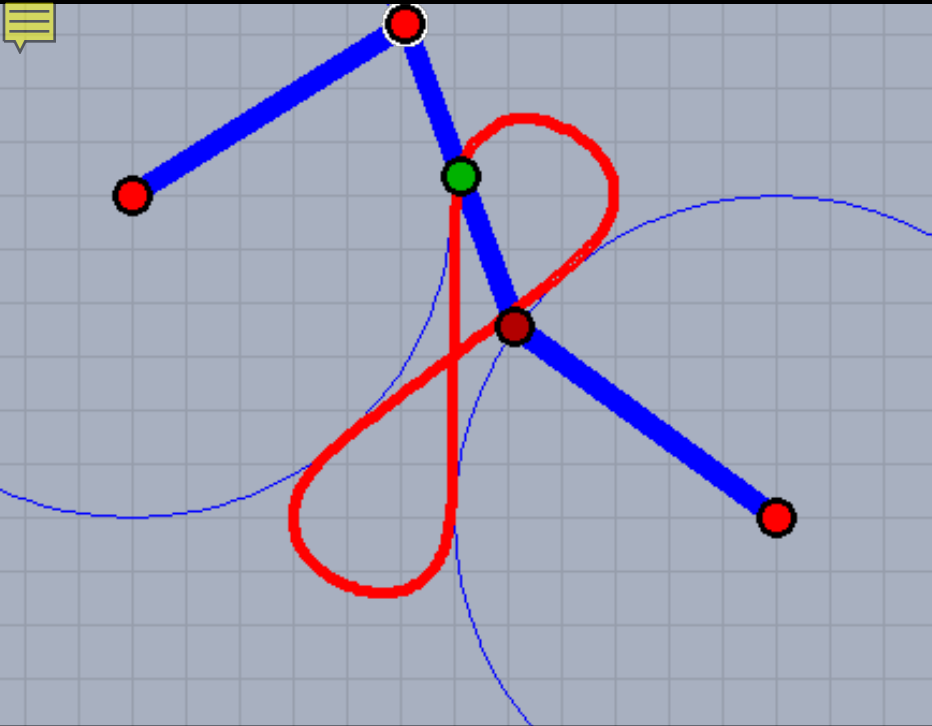


Fig. 2.

Watt 1784

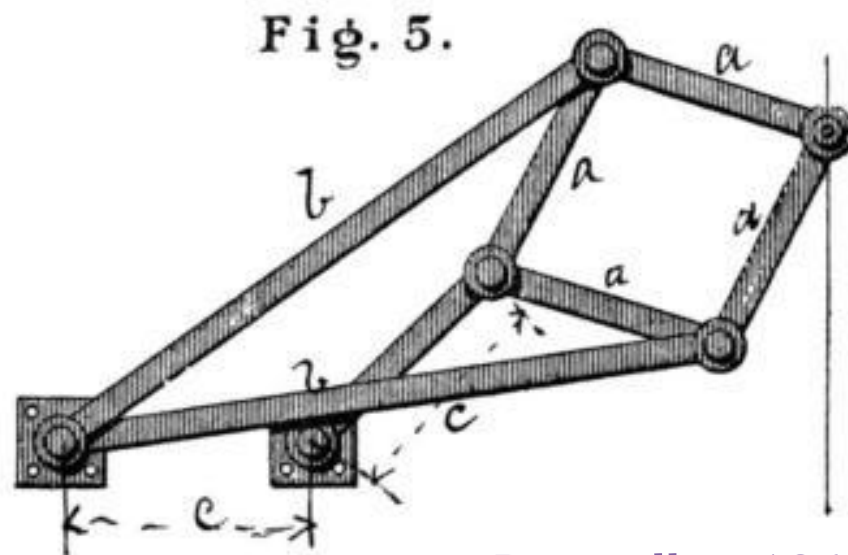
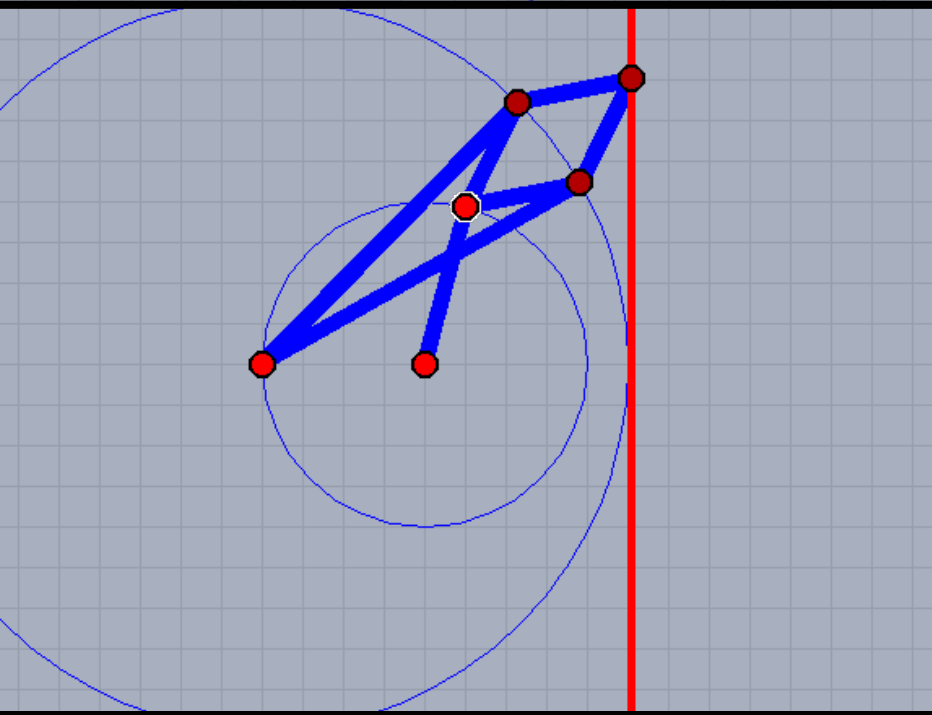
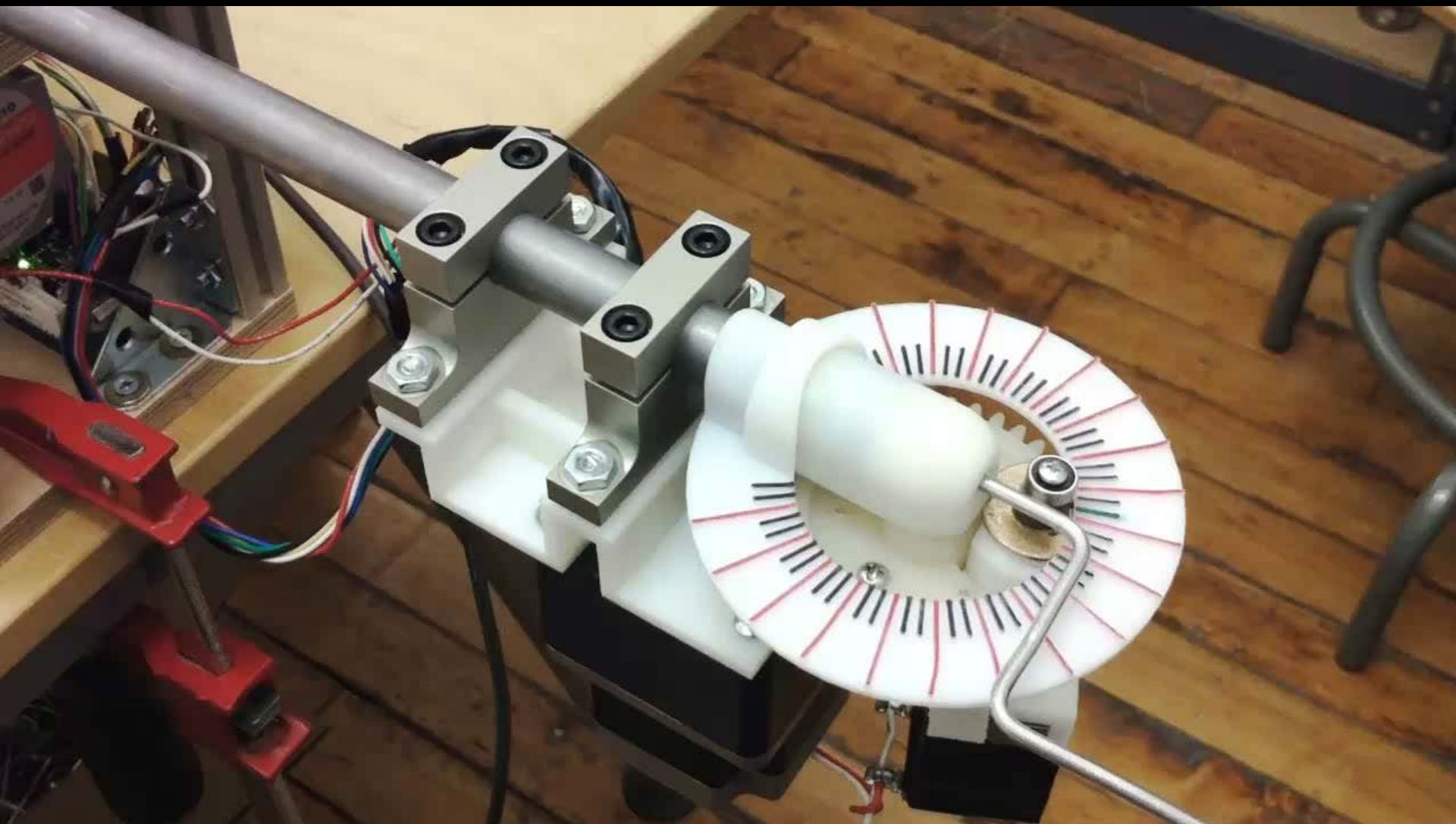


Fig. 5.

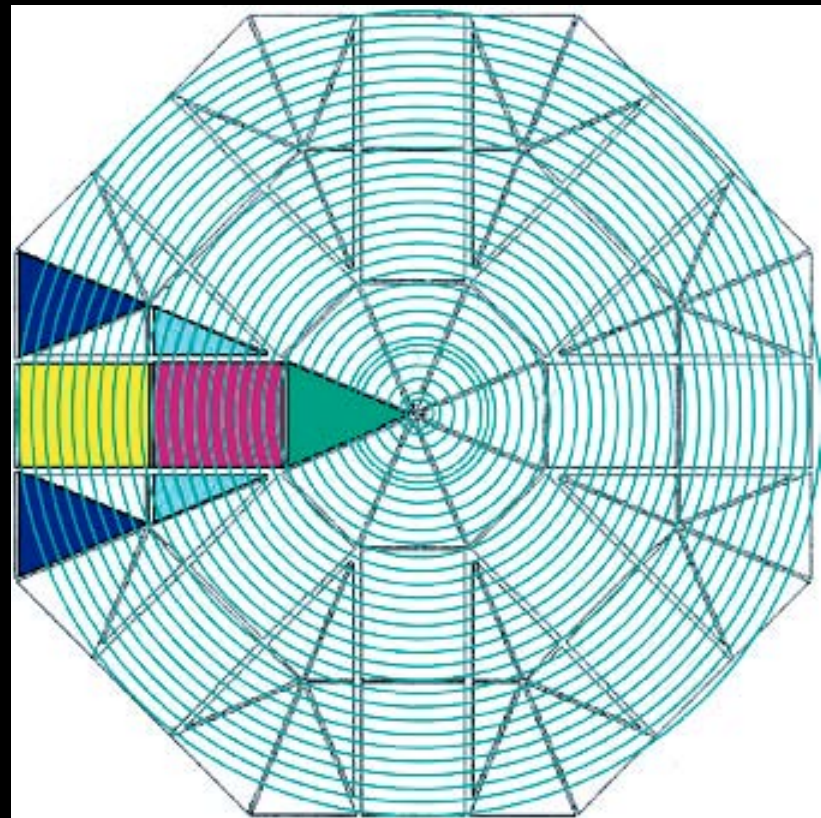
Peaucellier 1864



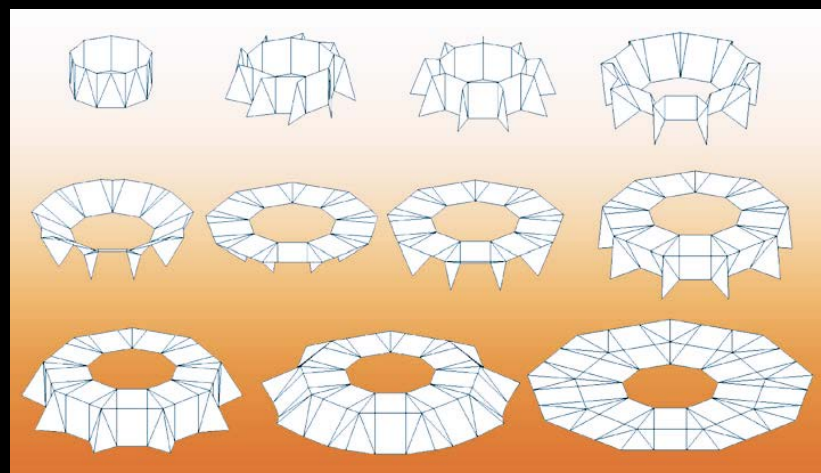
DIWire [Pensa, 2012]



[You & Kuribayashi 2003]



[Lang & LLNL 2002]



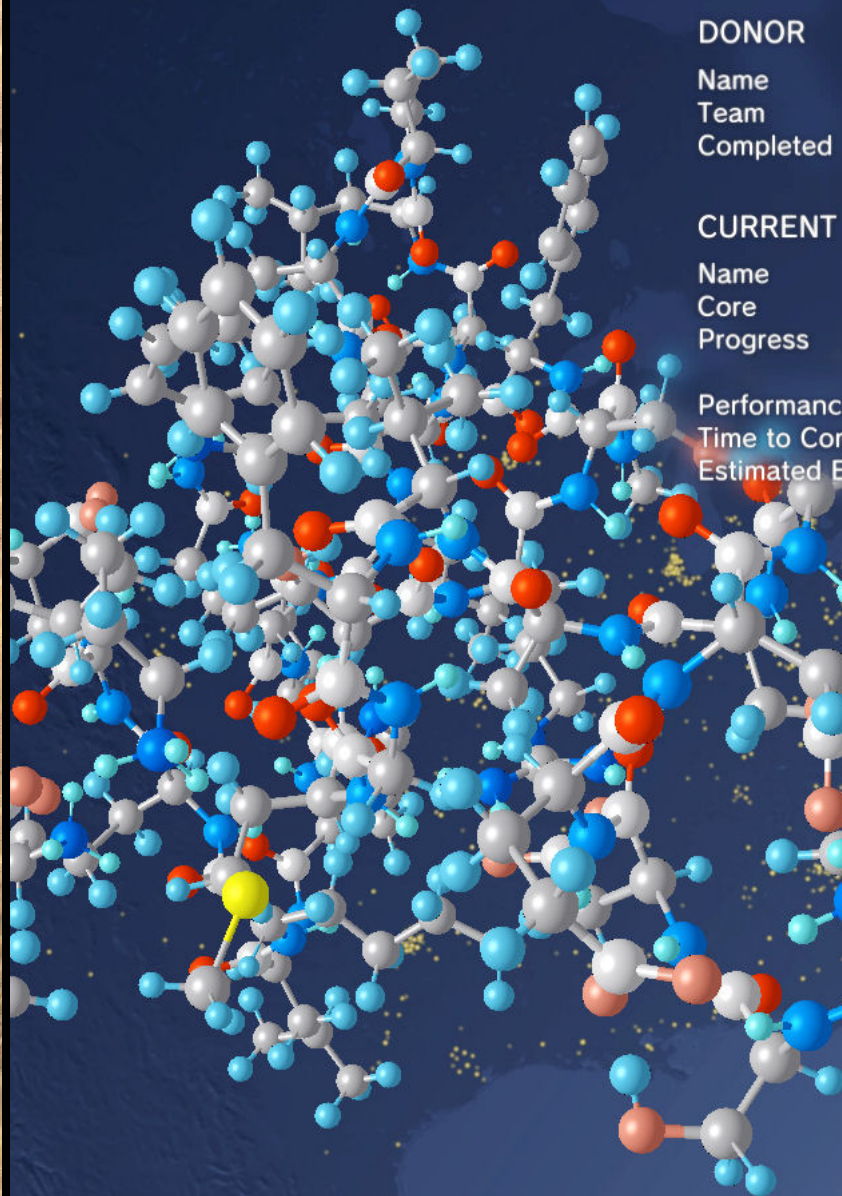
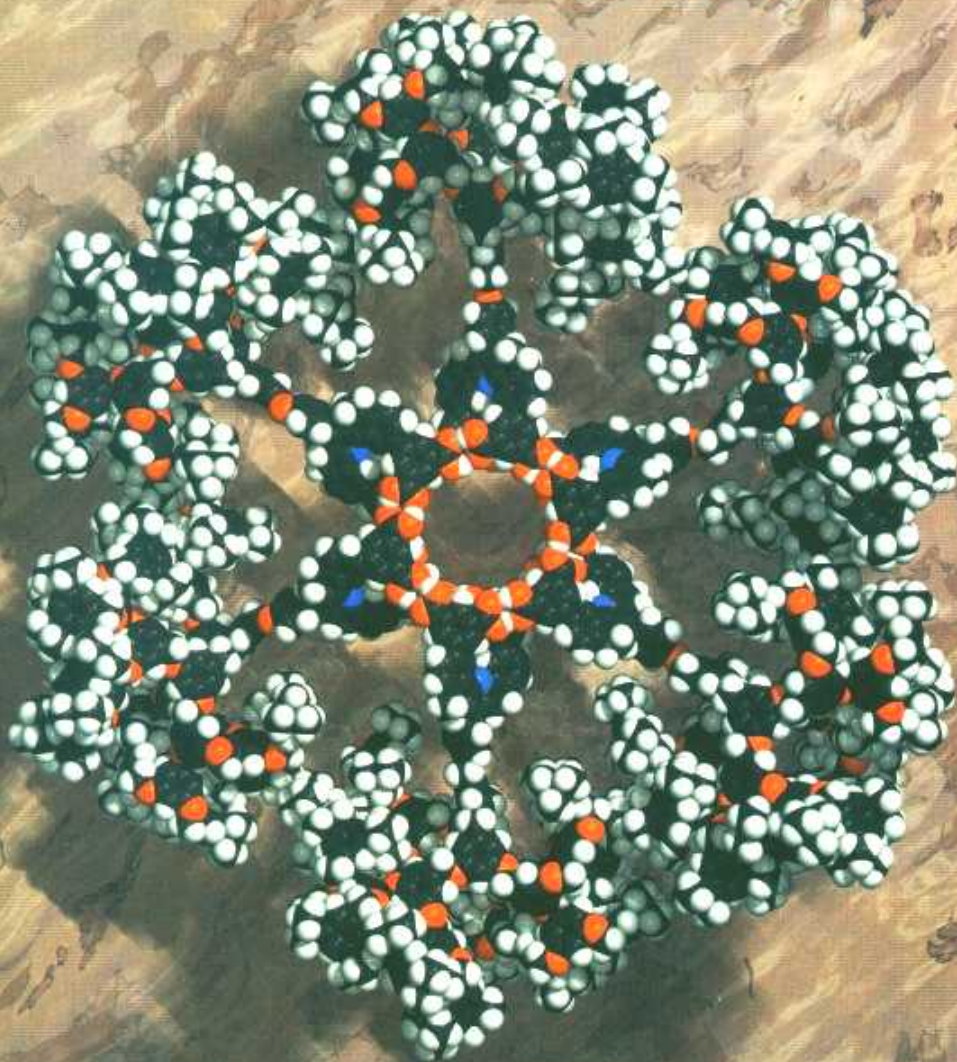


AMERICAN
ASSOCIATION FOR THE
ADVANCEMENT OF
SCIENCE

SCIENCE

23 FEBRUARY 1996
VOL. 273/7 PAGES 1029-1200

\$7.00



DONOR

Name
Team
Completed

CURRENT

Name
Core
Progress

Performance
Time to Complete
Estimated Budget

folding@home



Nazgul 8.1
Jason Ku
2011



photo by Jason Ku



photo by Brian Chan

Cerberus
Satoshi Kamiya
2005

Renwick Gallery,
Smithsonian American
Art Museum, 2012

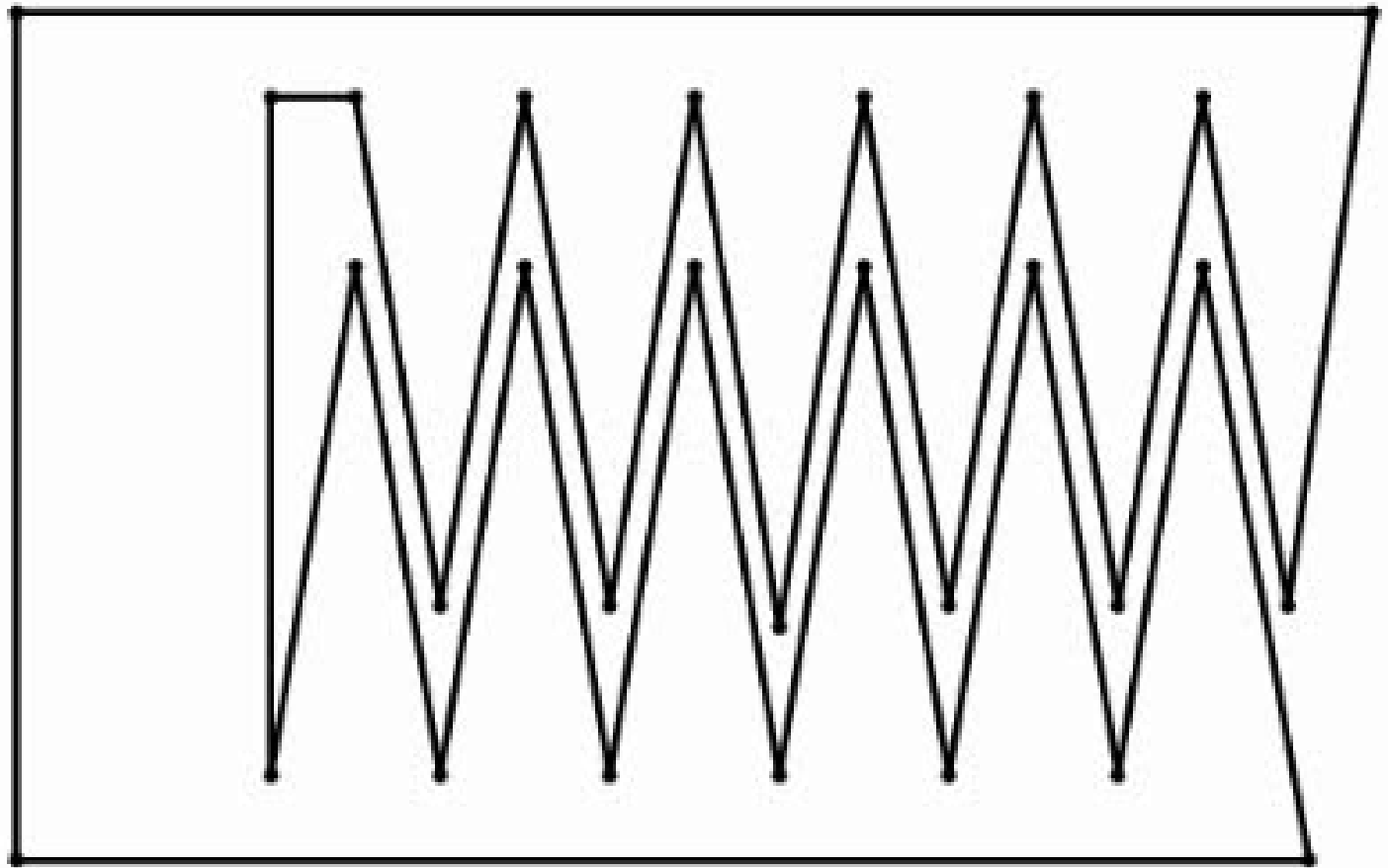
Demaine &
Demaine



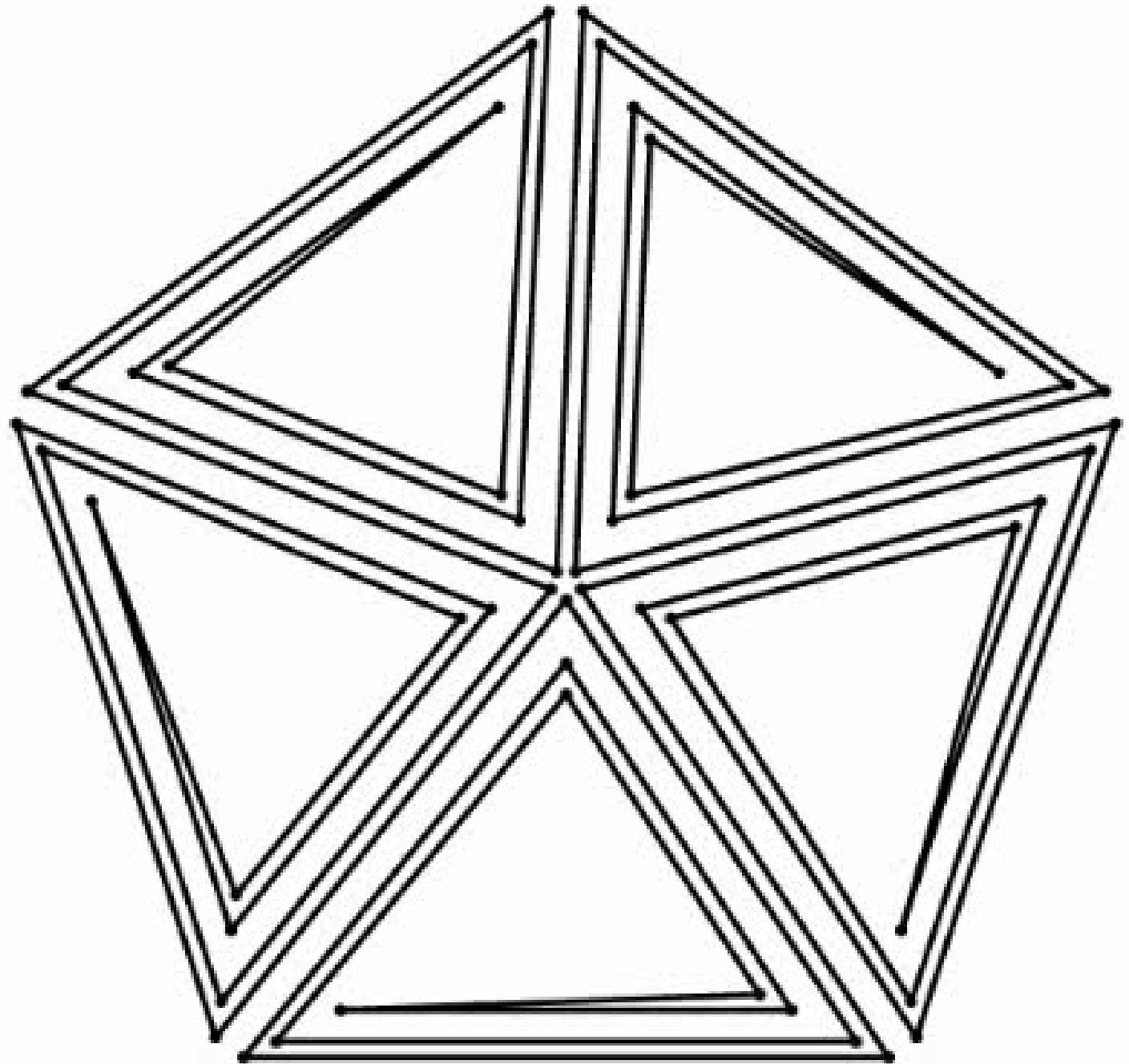


“Hoberman Arch”
Hoberman Associates
Salt Lake City, 2002

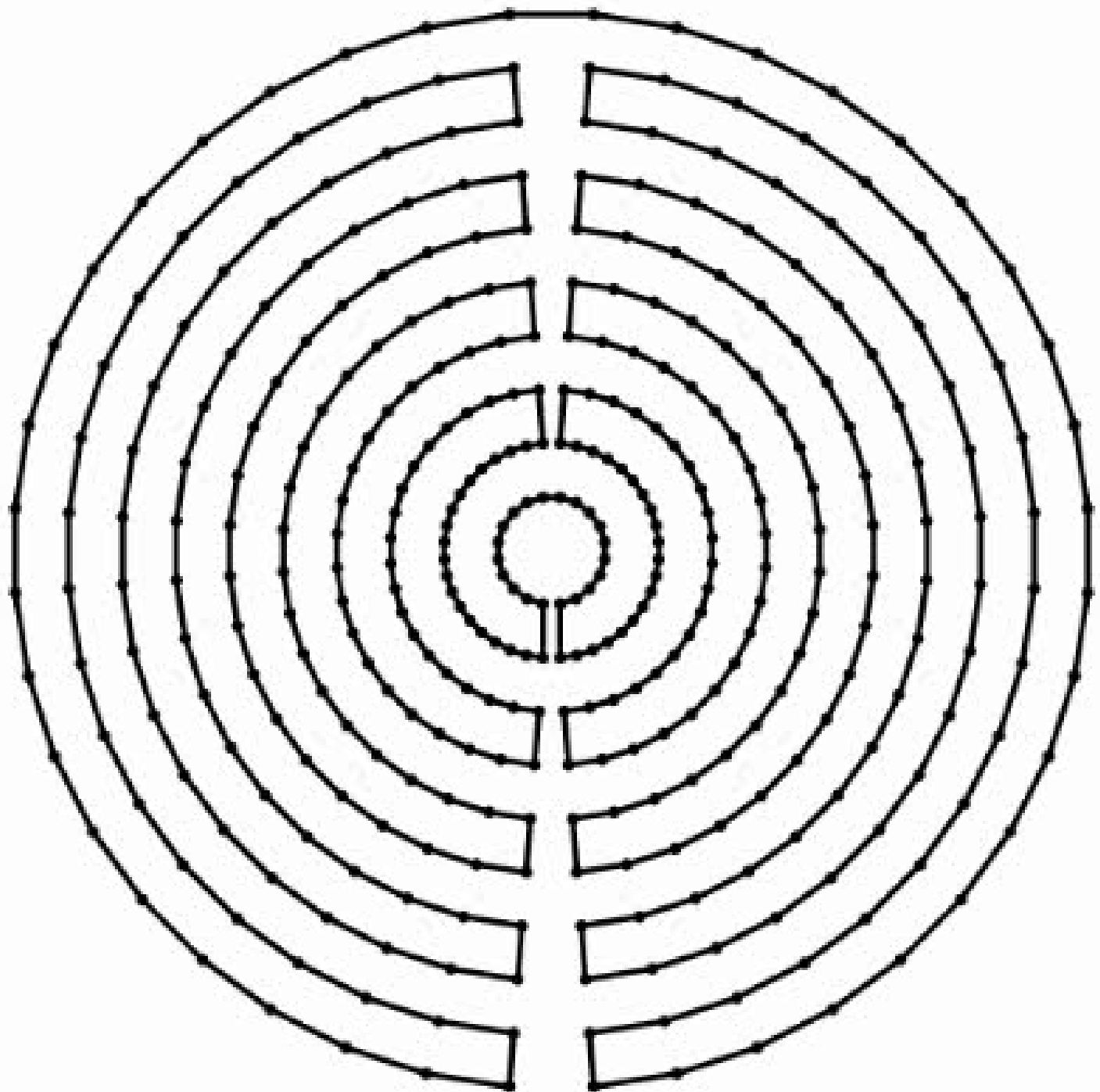




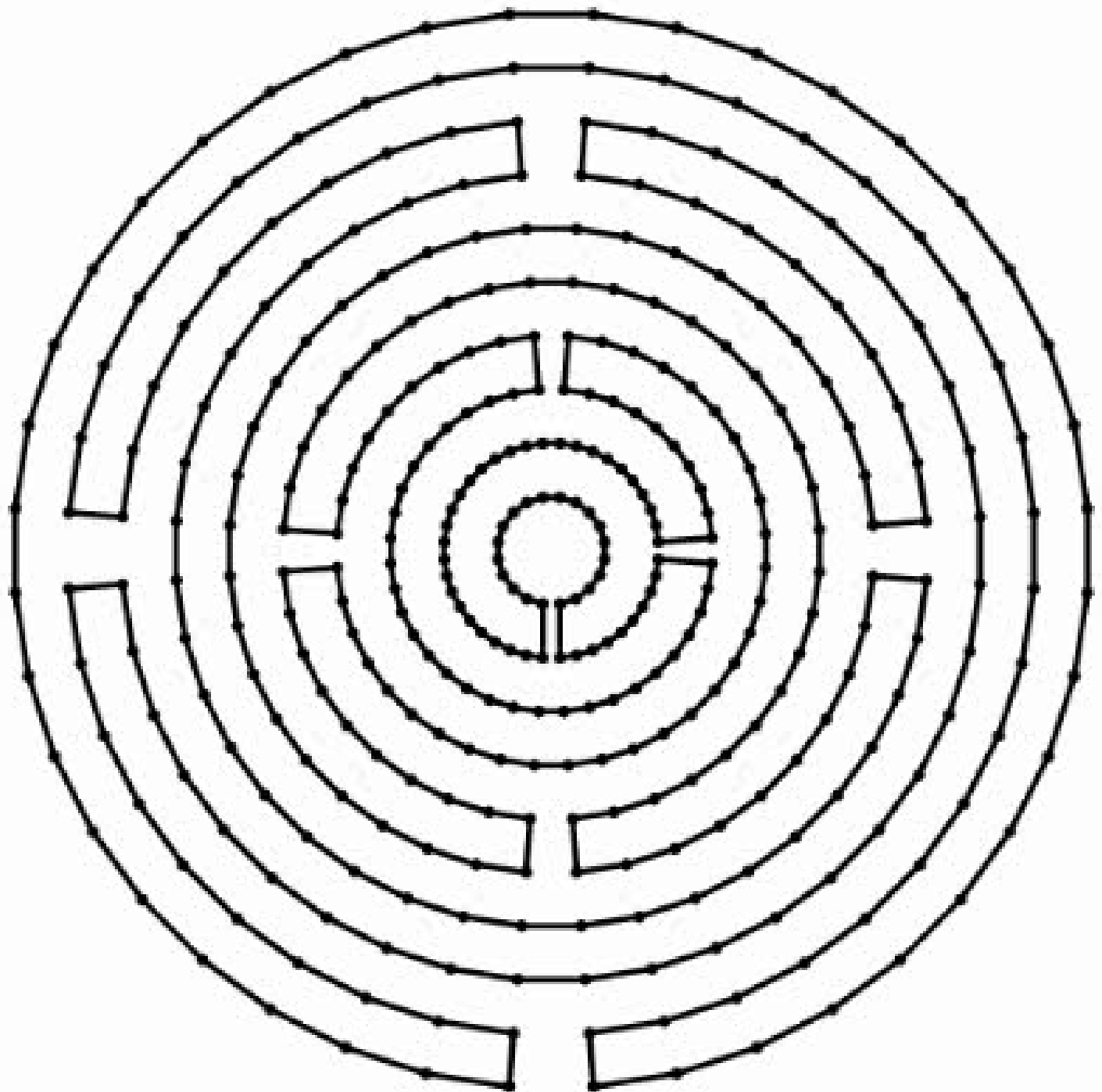
[Cantarella,
Demaine,
Iben, O'Brien
2004]



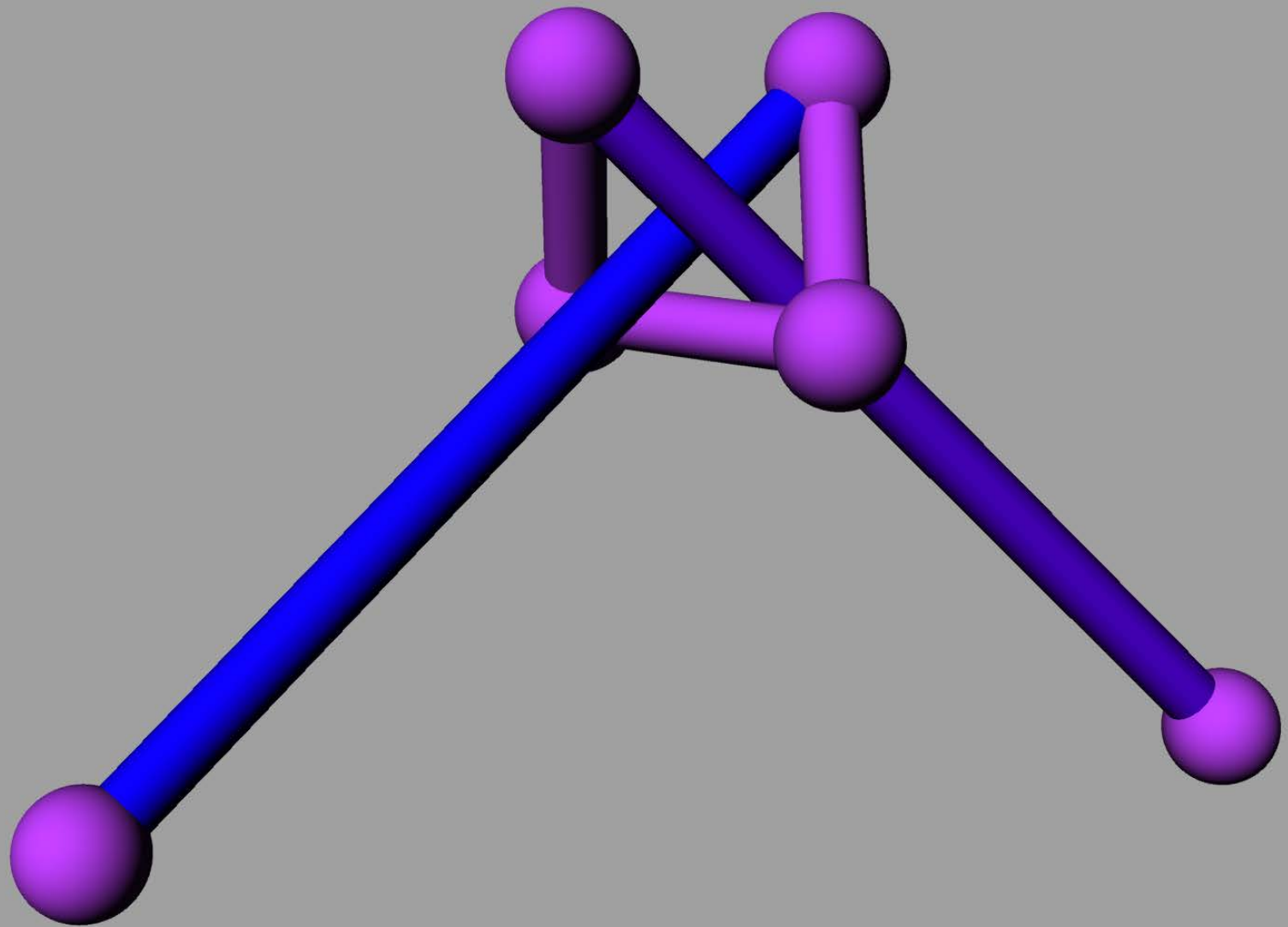
[Cantarella,
Demaine,
Iben, O'Brien
2004]



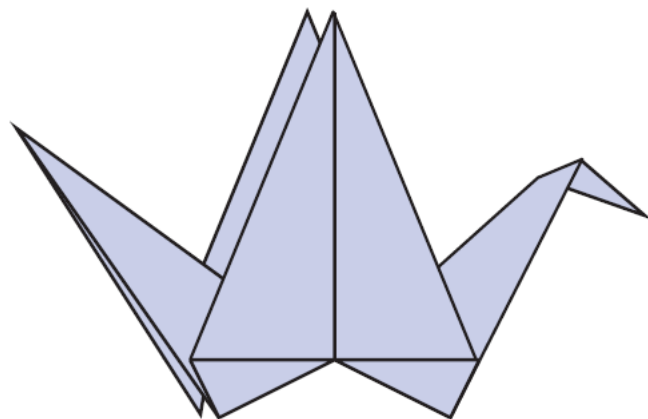
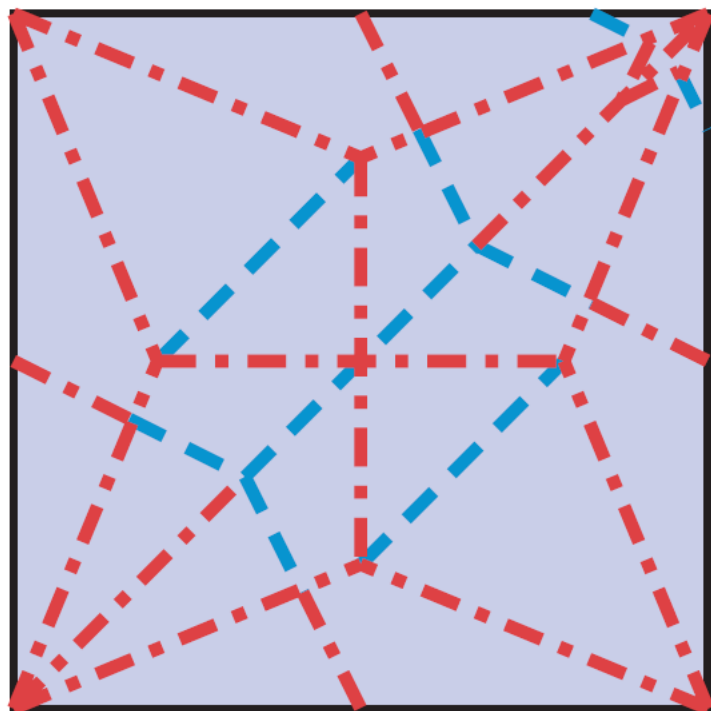
[Cantarella,
Demaine,
Iben, O'Brien
2004]

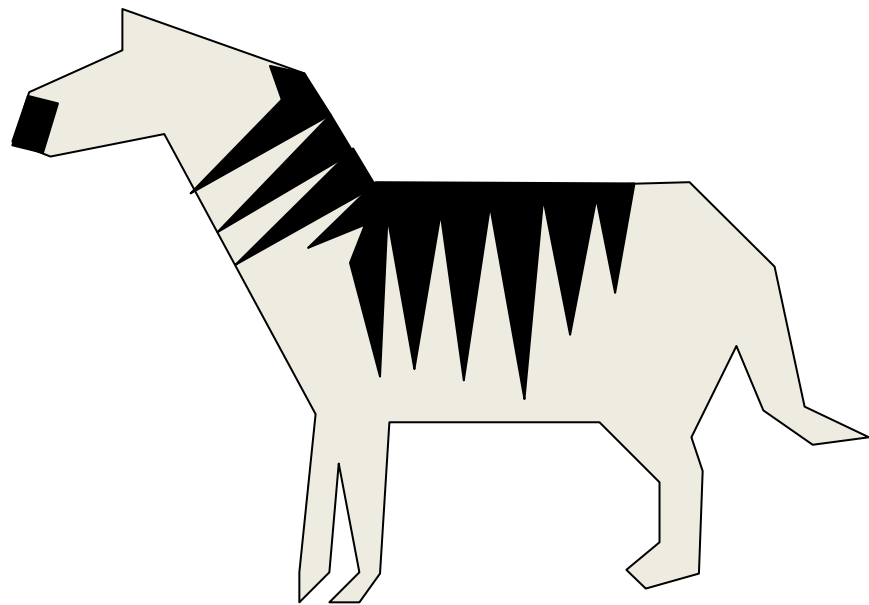
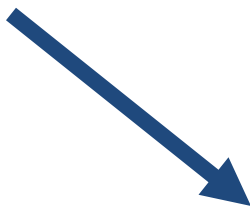
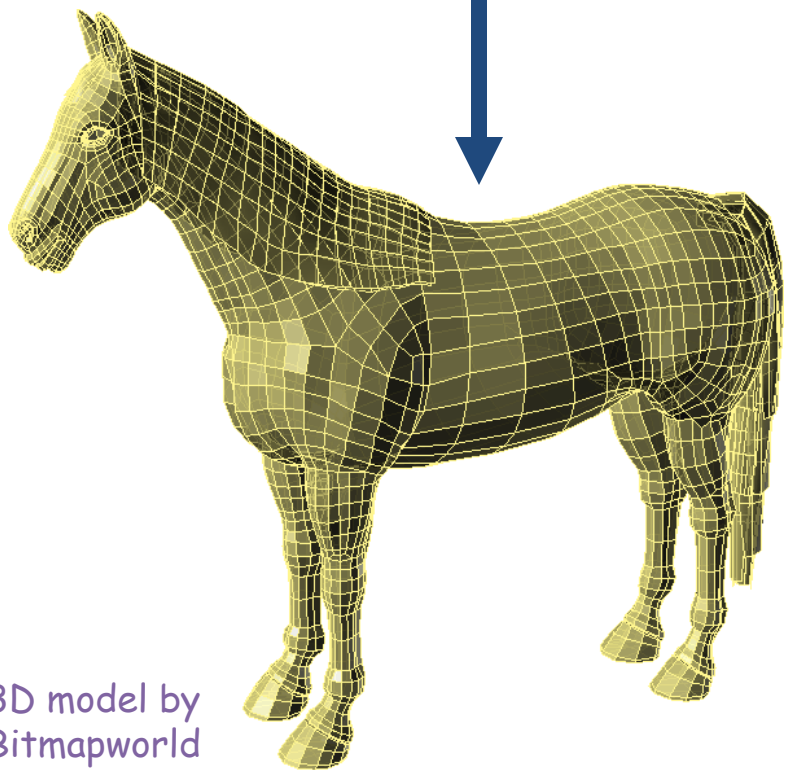
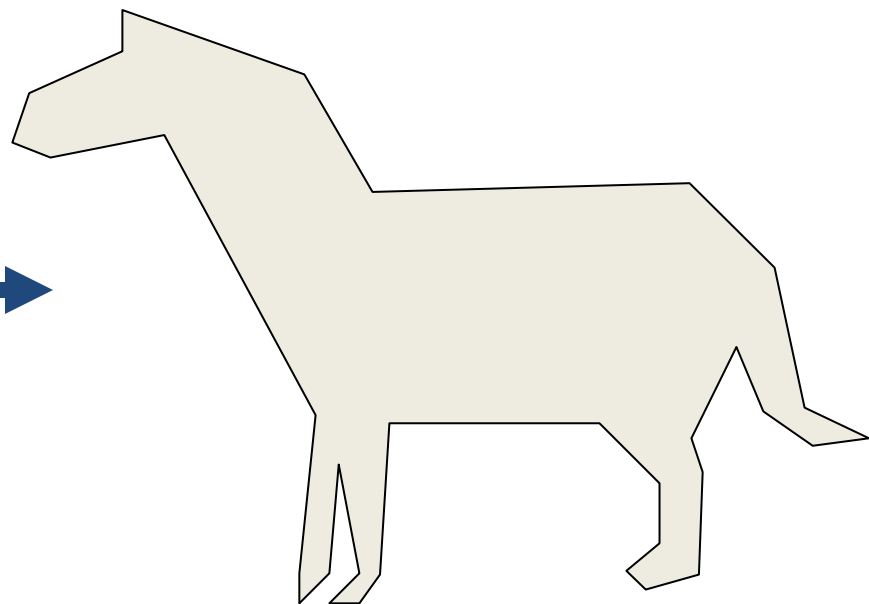
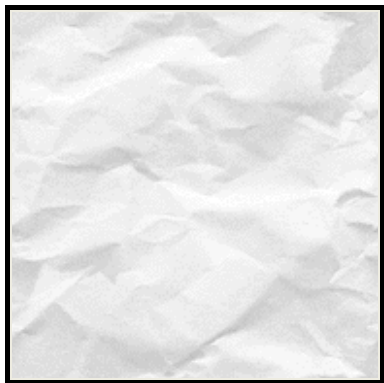


[Cantarella,
Demaine,
Iben, O'Brien
2004]



[Cantarella & Johnston 1998]





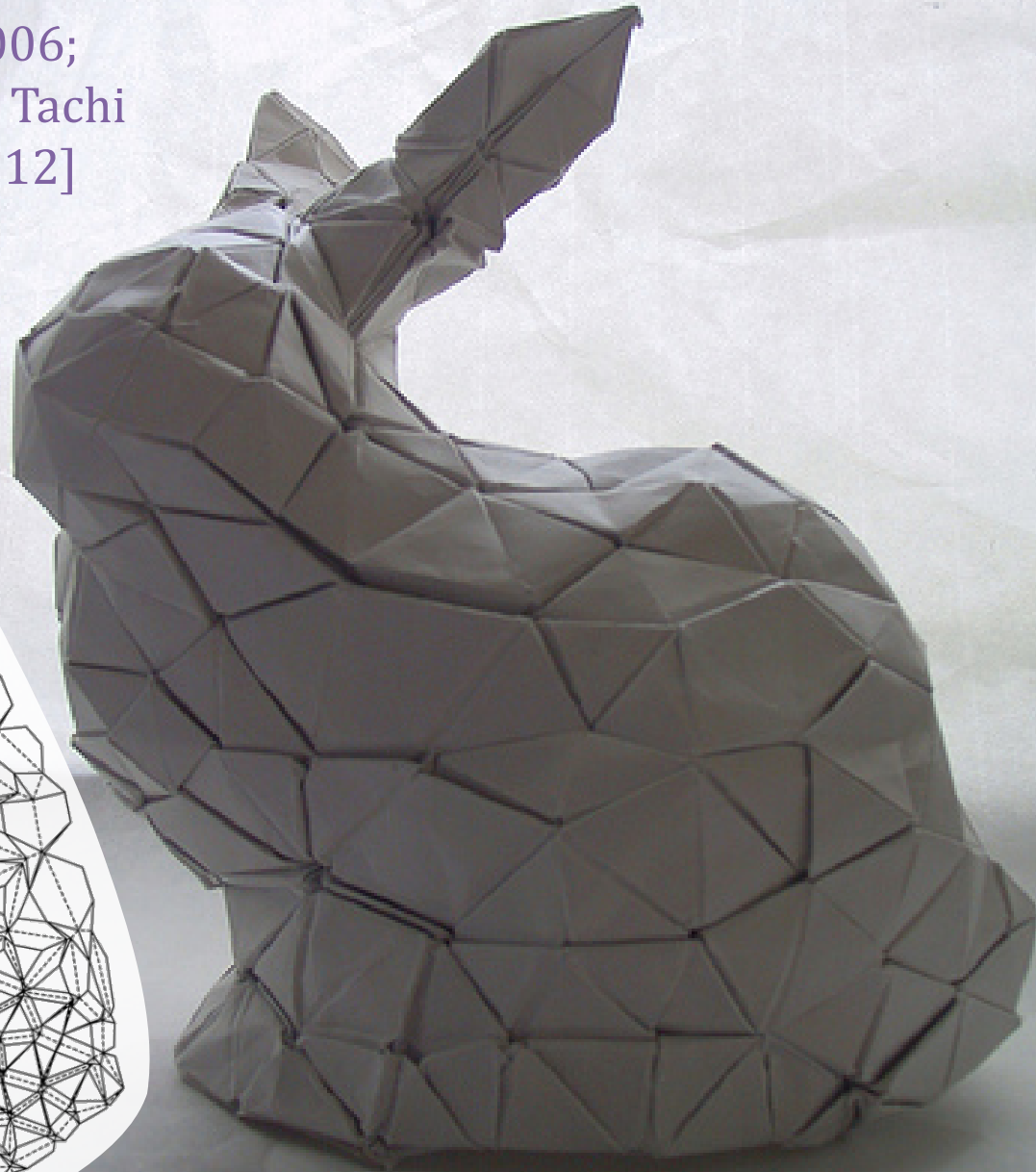
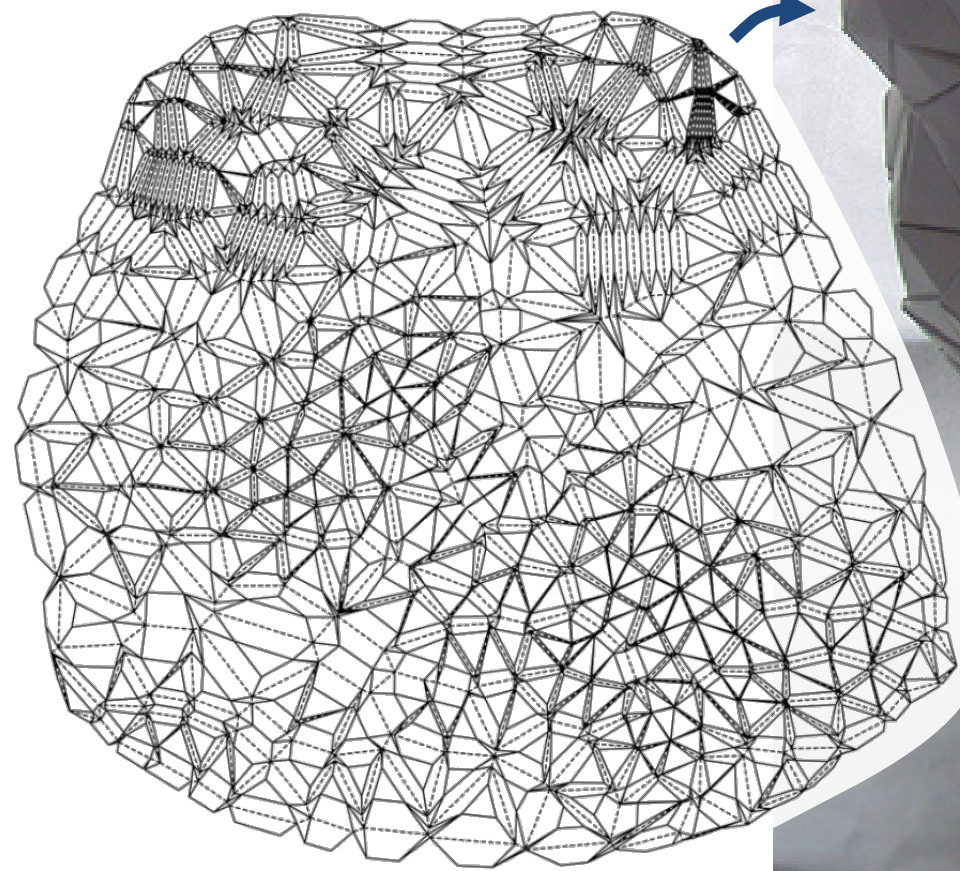
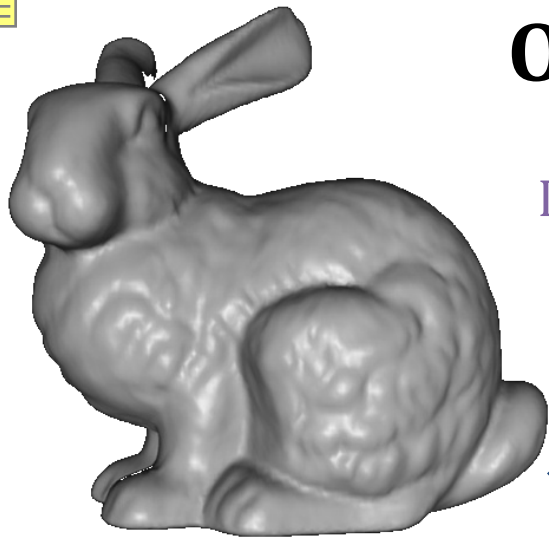
3D model by
Bitmapworld

[Demaine, Demaine, Mitchell 1999]

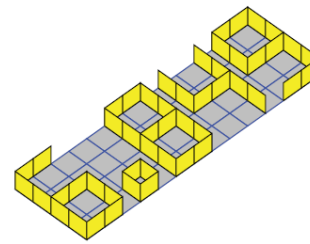
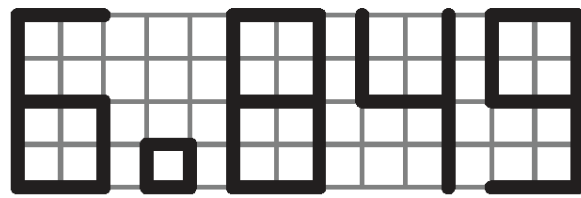


Origamizer

[Tachi 2006;
Demaine & Tachi
2009–2012]



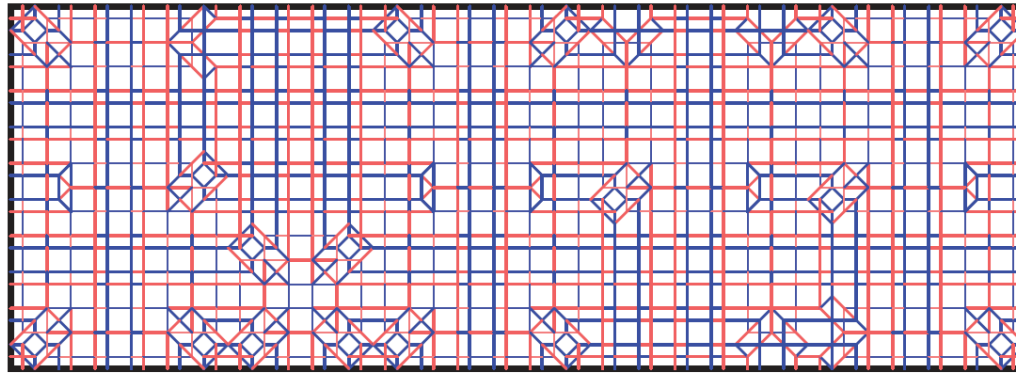
Tomohiro Tachi



CONCEPTUAL DESIGN



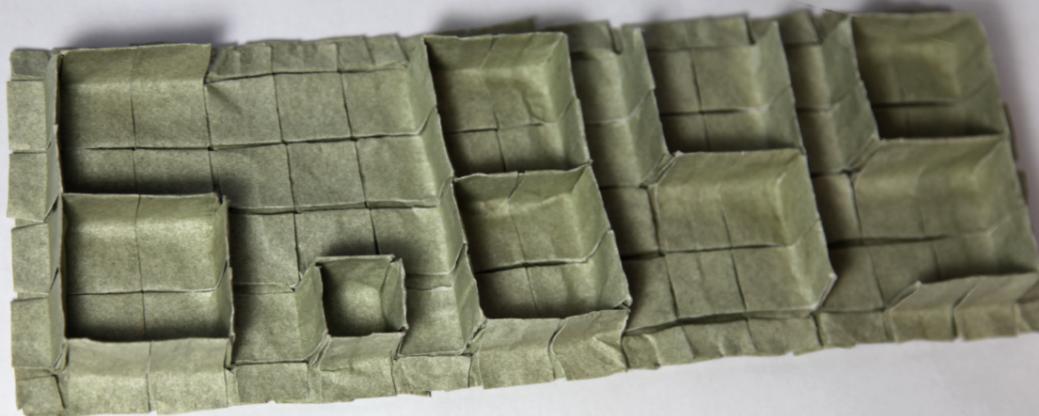
MAZE FOLDING ALGORITHM
[demaine, demaine, & jason ku, 2010]



CREASE PATTERN



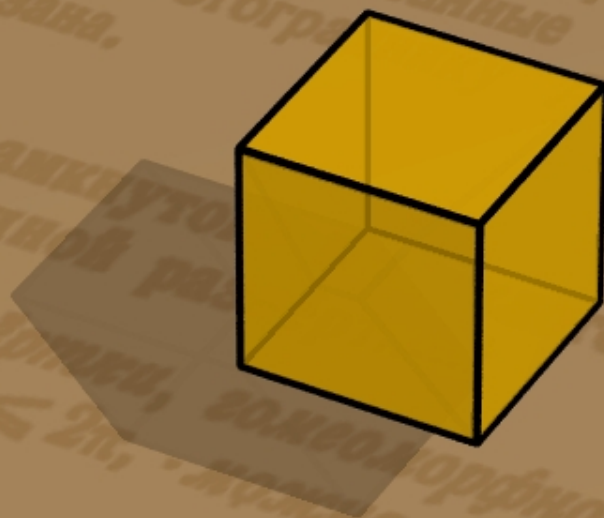
ACTUAL FOLDING
[jenny ramseyer & eli davis, 2012]

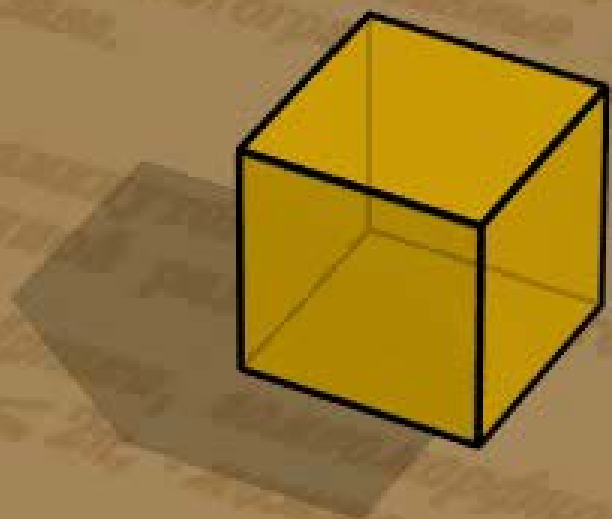




Metamorphosis of the Cube

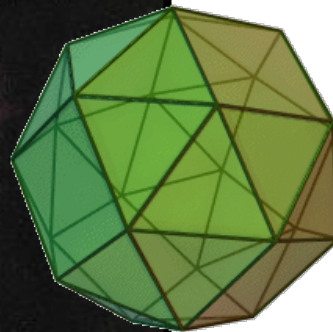
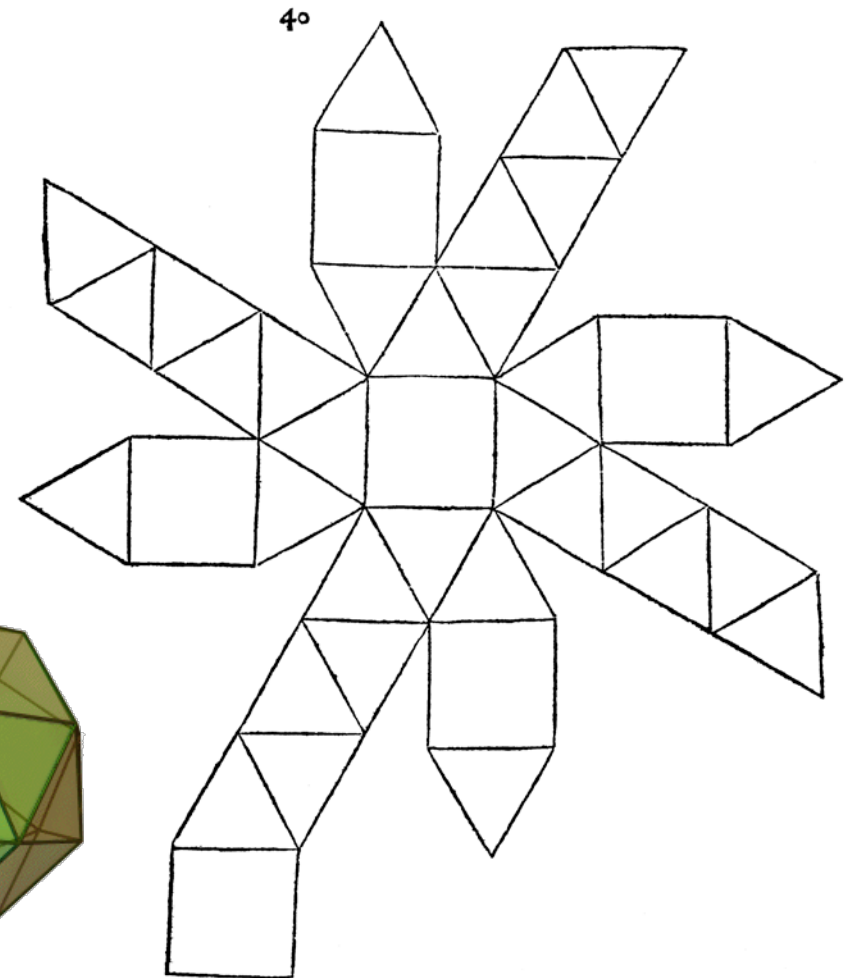
Demaine, Demaine, Lubiw, O'Rourke, Pashchenko 1999







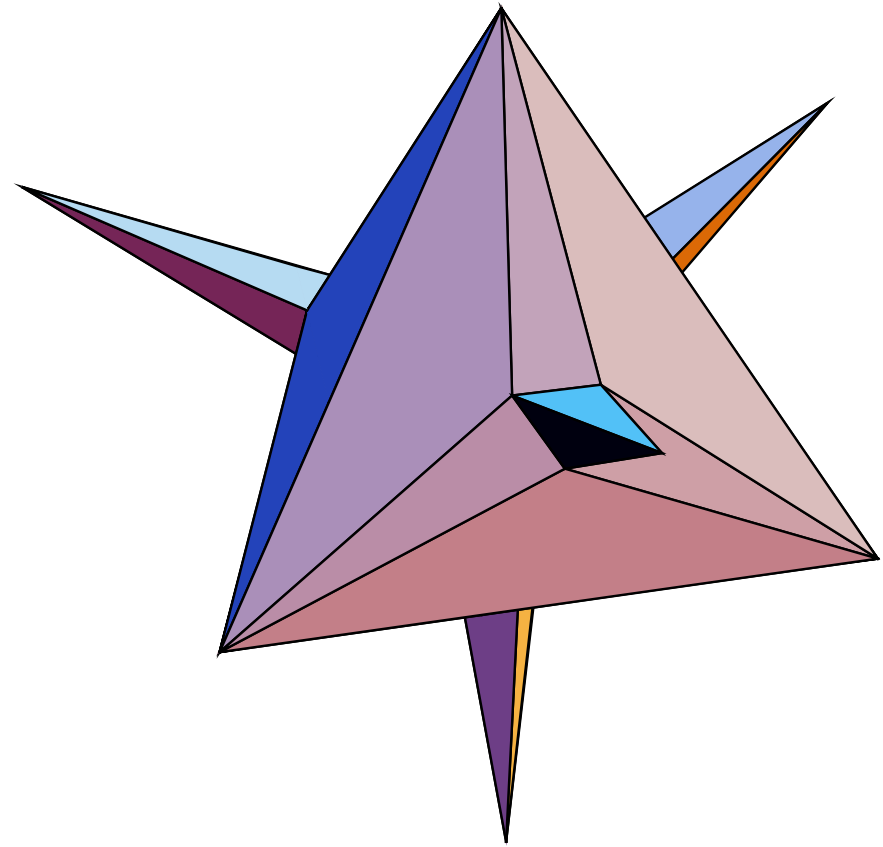
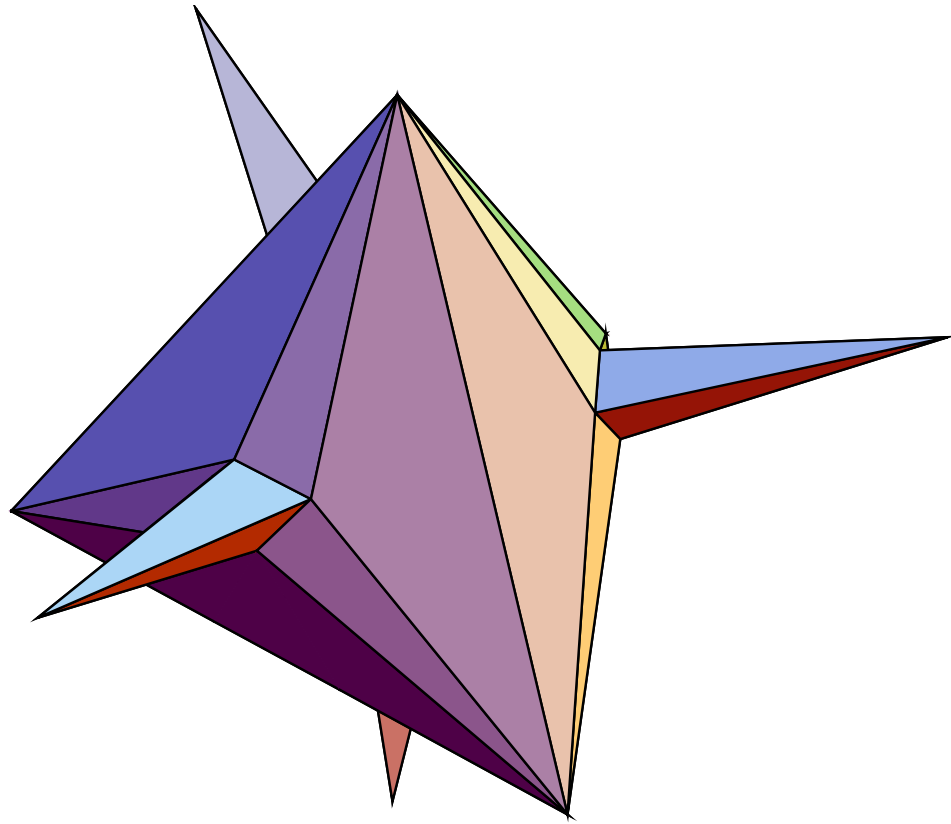
Das Sechst corpus/so das aufthan wirt/hat es sechs gefierte/vnd zwey vnd dreyßig Dyrangli che felder/so man das zûsamen leget.gewint es vier vnnnd zweynßig eck/vnnnd sechßig scharpfer seyen.



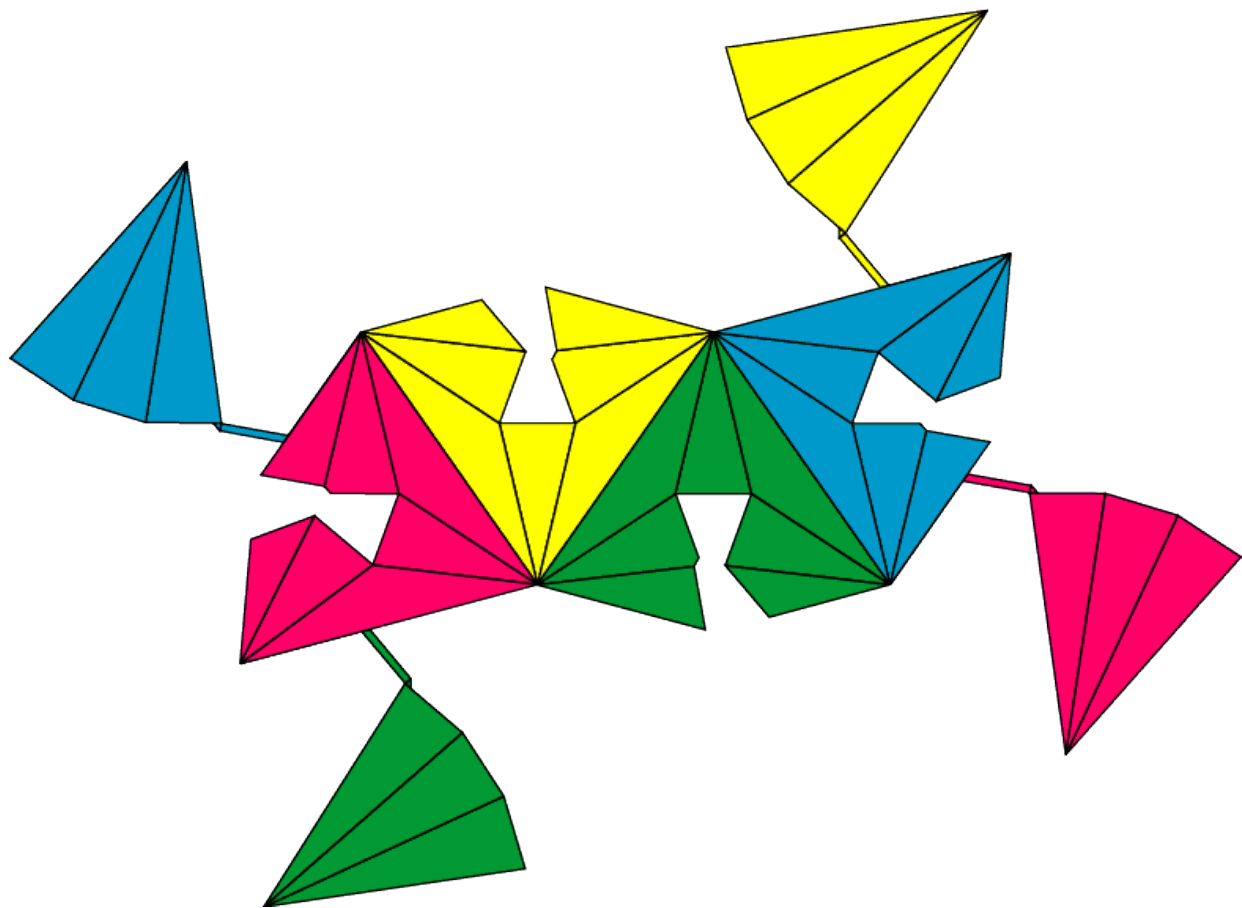
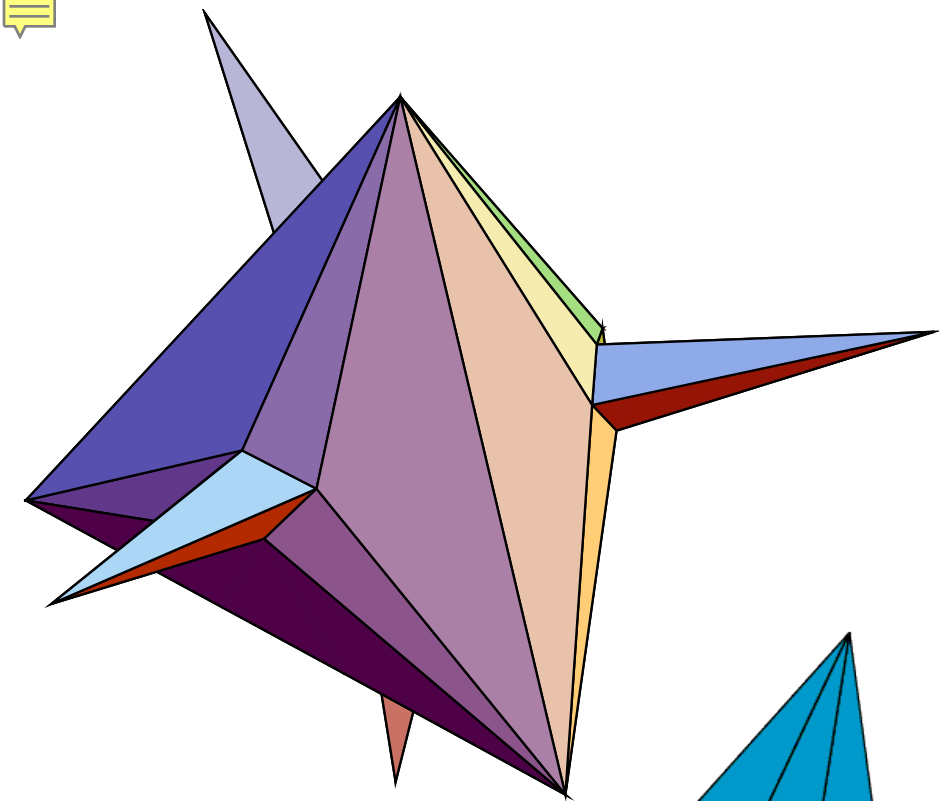
Das Sibent vnd nach folget corpus/so es offen leyt/hat es sechs acht ecketter/vñ acht sechs ecketer /vnd zwelf vier ecketter felder/vñ so man das zûsamen leget/so gewint es acht vnd vierßig eck/vnd zwo vnd sibenzig scharpfer seyen.

Albrecht Dürer (self-portrait)

The Painter's Manual [1525]



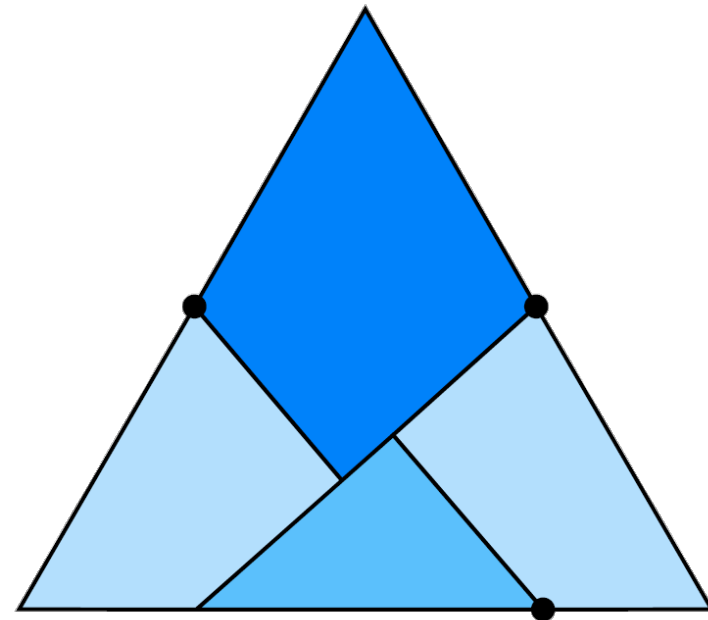
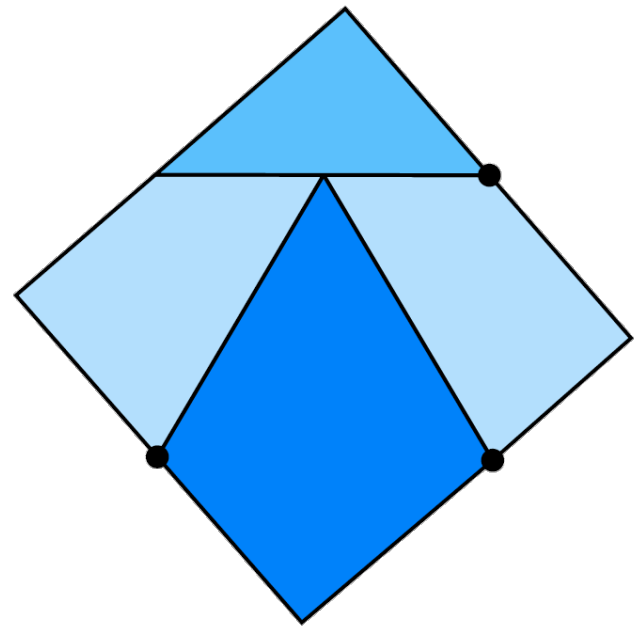
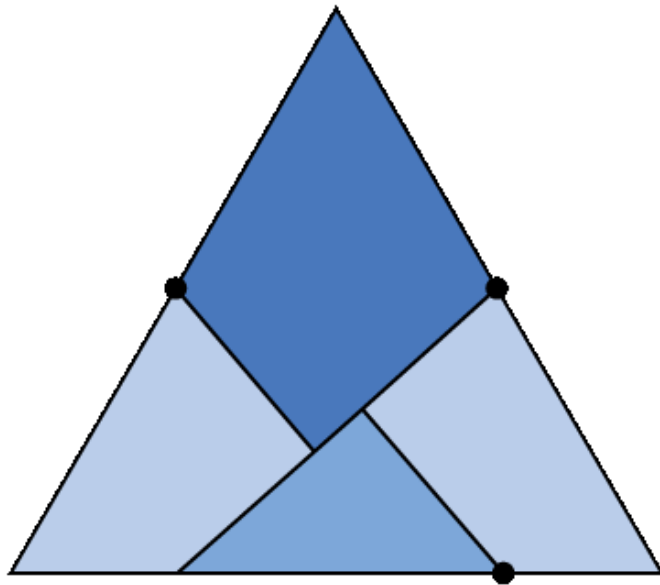
[Bern, Demaine,
Eppstein, Kuo, Mantler,
Snoeyink 2003]

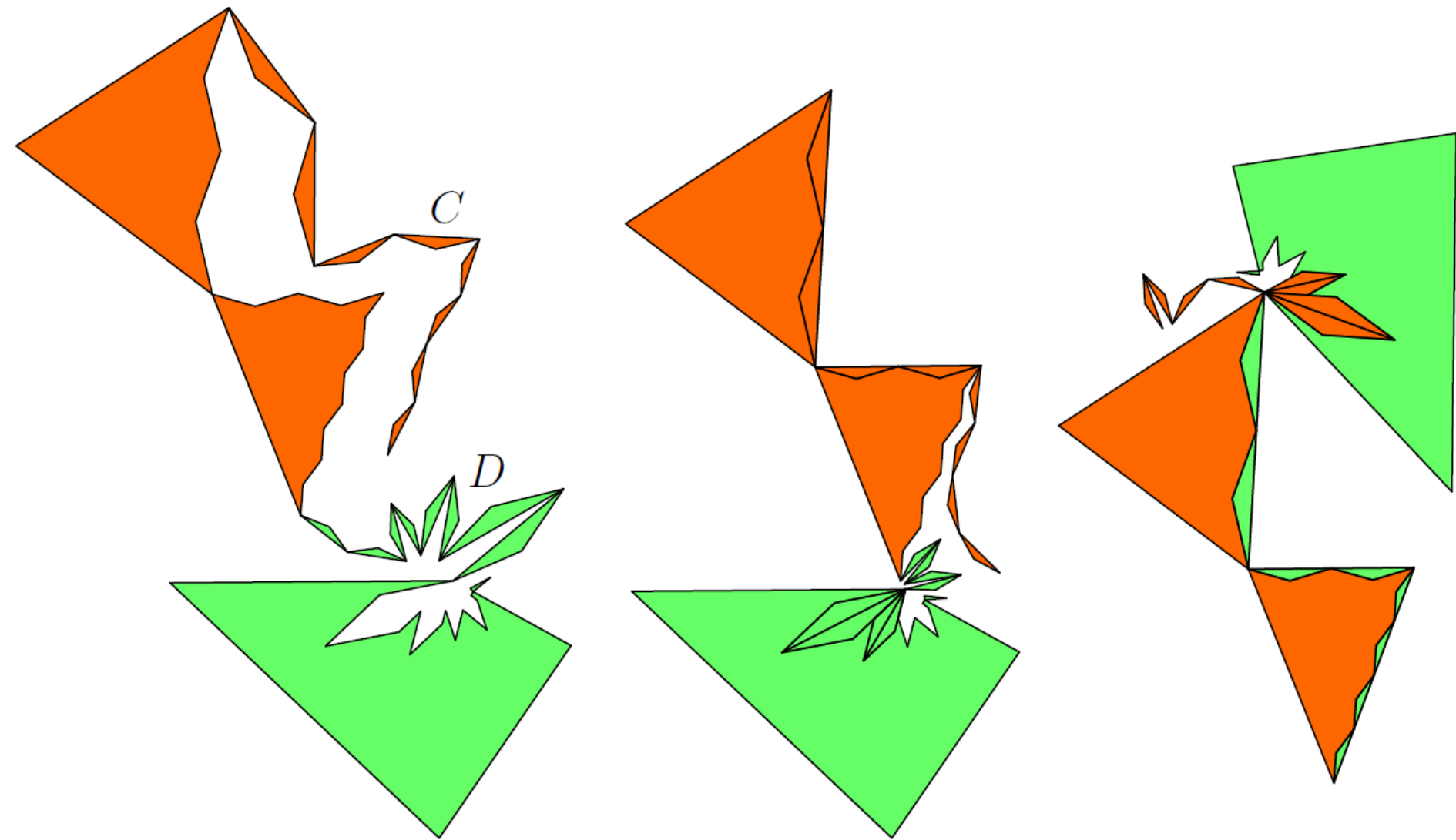


[Bern, Demaine,
Eppstein, Kuo, Mantler,
Snoeyink 2003]



[Dudeney 1902]





[Abbott, Abel, Charlton, Demaine, Demaine, Kominers 2010]

The Helium Stockpile

[Demaine, Demaine,
Palmer 2006]

