Is there still no software for the fold-and-cut problem? I was totally expecting you to pull out some cool app for it.
Crease pattern for "The big fish: step by step" removed due to copyright restrictions.

David Benjamin & Anthony Lee
2010
For the universality condition, don’t you need some condition like that every vertex not on the edge of the paper has even degree? Or can the cut be a line segment instead of a whole line?
Side assignment: specify which cut regions are above or below the cut line

- skeleton edges as above in above regions; reversed in below regions

- cut edge valley between two above regions
  mountain between two below regions
  uncreased between one above & one below

- e.g. 2-regular (nested/disjoint polygons)
  $\Rightarrow$ natural 2-coloring
  $\Rightarrow$ all cuts uncreased ("scissor cuts")

- e.g. 4-regular checkerboard

[Diagram of a checkerboard with all white squares on the left and all blue squares on the right, along with a cut shown with scissors]
Could you quickly show the process of turning linear corridors into a tree?

I am confused about the correspondence between trees and corridors and their relation to being flat foldable.
On the probability of bad straight skeletons, I was wondering if
should be the other way around — [...] most randomly generated fold-cut problems will exhibit this
chaotic straight skeleton, since the number of irrational numbers in
any interval is more than the number of rational numbers?
Crease pattern of witch hat removed due to copyright restrictions.
Diagram of fold instruction and final figure removed due to copyright restrictions. Refer to: Fig. 6 from Demaine, Erik D., and Martin L. Demaine. "Fold-and-Cut Magic." *Tribute to a Mathemagician*. A K Peters, 2004, pp. 23–30.
Diagram of fold instruction and final figure removed due to copyright restrictions. Refer to: Fig. 6 from Demaine, Erik D., and Martin L. Demaine. "Fold-and-Cut Magic." *Tribute to a Mathemagician*. A K Peters, 2004, pp. 23–30.
Diagram of fold instruction and final figure removed due to copyright restrictions. Refer to: Fig. 4 from Demaine, Erik D., and Martin L. Demaine. "Fold-and-Cut Magic." *Tribute to a Mathemagician*. A K Peters, 2004, pp. 23–30.
I got a little confused in the disk-packing method, and specifically how you went from a disk-packing to the diagram with all the triangles. All in all, cool proof though.
There seem to be many different ways to allocate disks that satisfy the given conditions. Is any allocation good enough to use for a crease pattern? Is there some kind of “optimal” way of disk packing?
How related is the tree method to the methods for this — is it just that rabbit ears and such come up everywhere, or do we actually have some sort of isomorphism (or not-quite-isomorphism) between fold-and-one-cut designs and uniaxial bases?
fold & cut
(disk packing method)

universal molecule
(tree method)
fold & cut
(straight skeleton method)

universal molecule
(tree method)
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I wonder how much this changes if you change from having a straight cut to one curved cut of fixed radius. Presumably, all your edges have to have that curve, but can you get interesting shapes out of it?
The explanation you gave a couple classes ago about what higher-dimensional folding means made sense to me at the time, but it makes considerably less sense now that you mentioned (this lecture) that you need to fold through the fourth dimension when you fold a grocery bag flat. [...] How do you explain this disconnect between theory and reality?
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[Demaine & Demaine 2002]
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