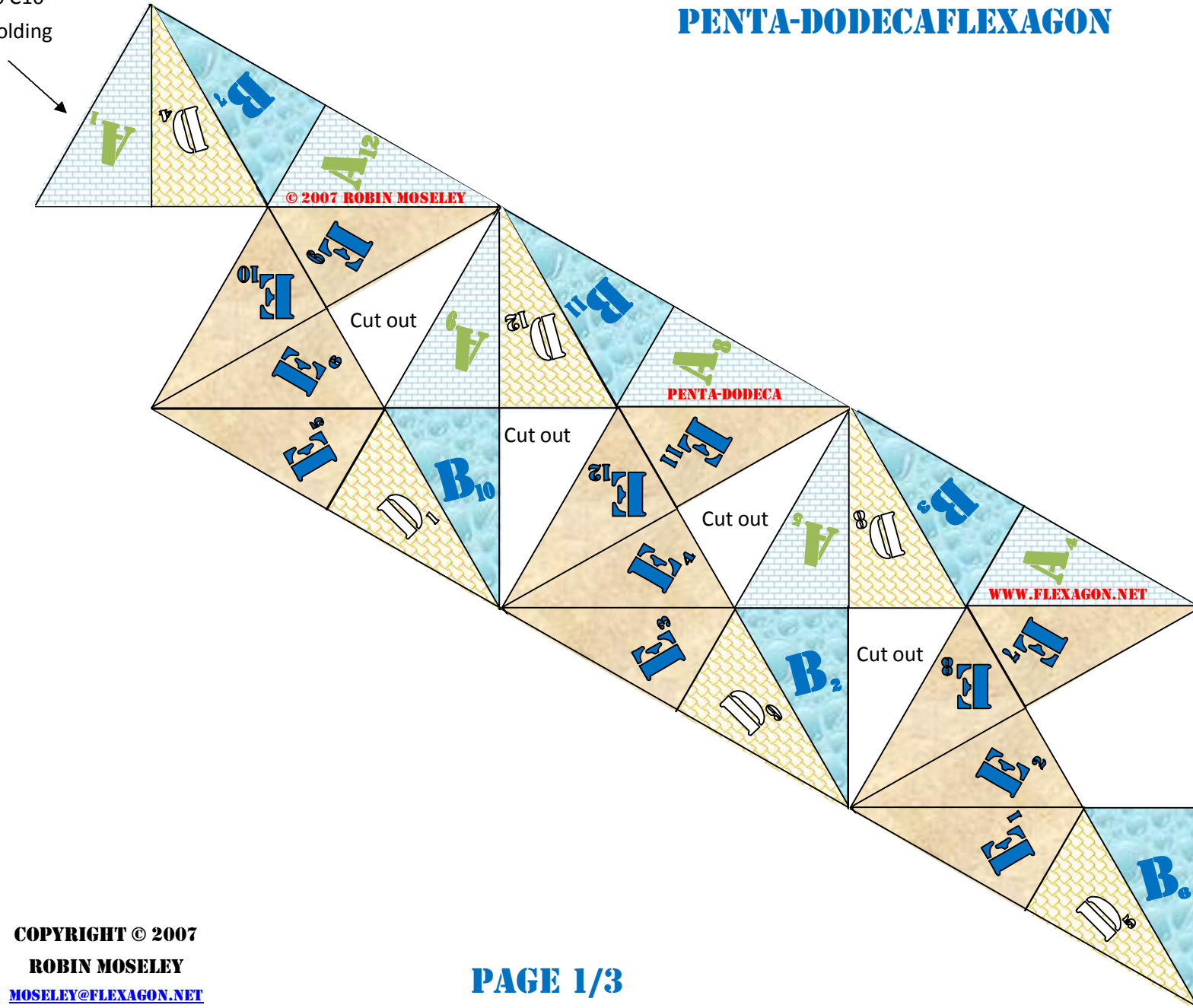
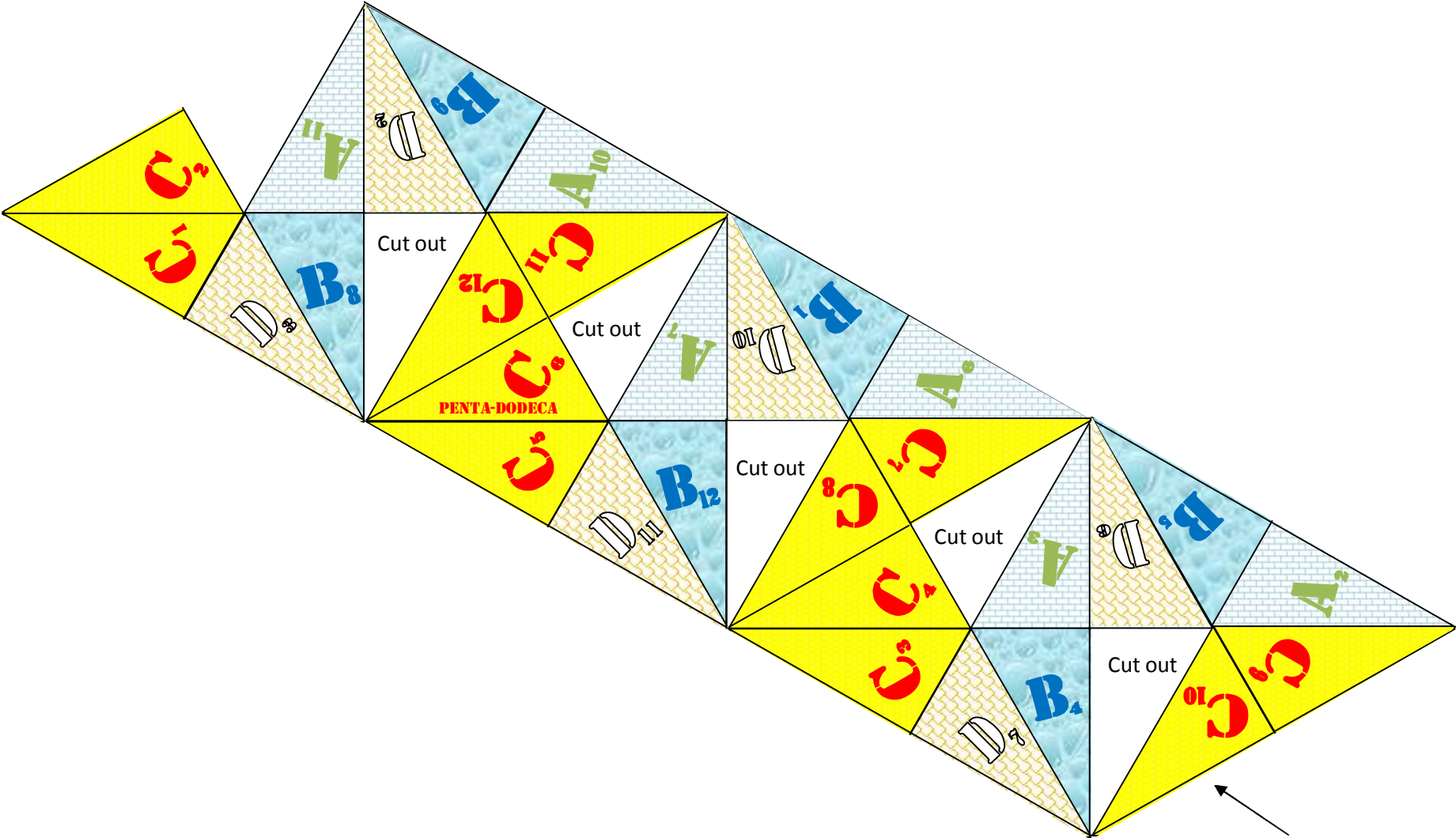


Glue reverse side  
last to C10  
after folding

# PENTA-DODECAFLEXAGON



# PENTA-DODECAFLEXAGON



Glue reverse side  
 last to A1  
 after folding

## **PENTA-DODECAFLEXAGON**

This is the five faced dodecaflexagon. Five basic faces means that you will be able to find faces with all As, Bs, Cs, Ds, and Es. You will also find many variations of faces with mixed letters and also varying arrangement of the triangles. This flexagon has a lot of wonderful dynamic properties. Be sure to make either the Junior 12-gon or the Tetra-dodeca flexagon before making this one. Flexing the faces will have a similar feel to them. You will find two sets of toggle triangles when flexing this flexagon. One set on one side and another on the other side. (The toggle triangles are the 3 triangular flaps that you will find on some of the flexes. If you fold these over, you will get new faces when flexing.) I find it can be easier (especially if you use a fast drying glue) to leave the inside triangles uncut until after gluing together. You should pre-crease all triangles before and after gluing. Glue the backside such that the reverse side of triangle C10 and the corresponding A1 triangles are not glued until the flexagon is completely assembled. These will lock the flexagon together. Triangle A2 will be behind triangle B5 when the two halves are glued together. Once the model is glued and re-creased, cut out the middle triangles. Two sheets of medium weight paper with rubber cement makes a nice working model.

Now that the model is cut and glued, fold together; E9-E10, C11-C12, E11-E12, C7-C8, E7-E8, C9-C10. You will then have a pattern as for the Tetra 12-gon. Continue by folding together; C1-C2, E5-E6, C5-C6, E3-E4, C3-C4, E1-E2 and you will have a pattern as for the Junior 12-gon. Now fold the following triangles; D3-D4, D1-D2, D11-D12, D9-D10, D7-D8, D5-D6, and then the A1 and C10 triangles can be glued together to complete the model. The flexagon will have a uniform thickness of 2 sheets of paper. Now flex and find all the variations!

**THIS FLEXAGON IS ANOTHER JUNIOR FLEXAGON IN THE 12-GON FAMILY FOR WHICH ANN SCHWARTZ HAS WRITTEN SEVERAL ARTICLES. BE SURE TO CHECK OUT ANN'S GREAT WEB ARTICLE:**

**[HTTP://WWW.EIGHTHSQUARE.COM/12-GON.HTML](http://www.eightsquare.com/12-gon.html)**

