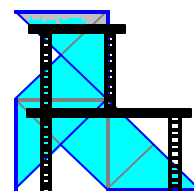


Scaffold



Helping to support and maintain the world of origami

MAY IS ASIAN-PACIFIC HERITAGE MONTH

Asian-Pacific Heritage month is upon us. Originally called Asian Heritage Month, this is a month set aside to explore the varied cultures of the coastal and island regions of Asia. My city's library system offers a number of demonstrations and workshops in its local branches. Origami has always been a part of this celebration and continues to grow in popularity. I will be running eight workshops while others are run by other local artists.

This month is the best opportunity for spreading the wonder of origami to new enthusiasts. I always feel a workshop is successful and worth the effort if just one participant folds something after leaving the class. Hopefully, many new enthusiasts will be welcomed into the fold this month.

This month also marks the start of a series of short articles about designing Sonobe units.

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New Books

None of this month's new books are actually new releases, but they are new to my collection. I found all of them online with used-book dealers as well as at origamido.com.

CREATING ORIGAMI by J.C. Nolan (ISBN 1-889856-02-9)(English) See this month's book review. This book is available at

<http://www.origamido.com>

ORIGAMIDO by Michael LaFosse (ISBN 1-56496-639-9)(English) A collection of beautiful photographs showcasing a cross-section of great origami art, plus a handful of diagrams. Available from many stores and online sites or you can go right to the source at

<http://www.origamido.com>

MATHEMATICAL MODELS by H.M. Cundy & A.P. Rollett (No ISBN)(English)

A guide to geometric shapes and their underlying mathematics. No origami, but a nice reference book for those interested in designing geometric origami. Also includes a section on paper weaving.

PIFFIGES ORIGAMI by Paulo Mulatinho (ISBN 3-8043-0226-2)(German)

A very nice collection of 32 models by various artists including Kunihiko Kasahara, Thoki Yenn, Francis Ow, Edwin Corrie, Juan Gimeno, Giuseppe Baggi, Nick Robinson and others.

THE BEST OF ORIGAMI by Samuel Randlett (No ISBN)(English) A true classic in the field. 65 models by many of the great artists including George Rhodes, Robert Harbin, Samuel Randlett, John M. Nordquist, Neal Elias, Ligia Montoya, Fred Rohm, and many others.

Submissions

Scaffold wants you! Scaffold needs you! Scaffold wants to show off your original designs. If you have any original designs and would like to share them with the world, send them in to Scaffold. All designs will be used. Scaffold will not edit or censor any design sent in.

Designs may be sent in either electronically, or on paper. Electronically is faster, but please try to use a format that keeps the file size down. Crease-fold patterns are a great way to pack more models into a smaller space. Paper diagrams can be sent to:

Joshua Koppel
PO Box 641374
Chicago, IL 60664-1374
USA

Paper diagrams will take a little longer for publication as they will have to be scanned, but they will be used.

Please remember to include a statement of permission with all submissions stating that it is okay for your design to be used in

an upcoming issue of Scaffold. Thank you.

Creating Origami

CREATING ORIGAMI by J.C. Nolan is a fascinating book for those looking for interesting things to fold as well as those who would like an in-depth look at how origami designs are created.

Mr. Nolan has categorized the main methods of creating new models: Accidental, Serendipitous, Algorithmic, Inspired, Philosophical, Analytical, Topological, and Piecemeal. Examples are given for each of these "methods." While reading, I thought about some of my own creations, and they all fit into these categories.

While a good portion of the 290 pages of this book are about creating and designing origami, there is also plenty to fold. There are 54 models by Mr. Nolan, as well as traditional models and some by Patricia Crawford and Fred Rohm. There are also some new bases described as multi-flap waterbomb and preliminary bases. I can see many wonderful uses for these in my own future.

The text of the book is written in a simple to understand and friendly style. It is almost like having the author present and sitting across the table explaining his ideas. The diagrams are very clear and seem easy to follow. I have found most of the models to be inspired, creative and fun to fold. There are even some rather challenging models like the Sea Anemone and Clown Fish (a model I had wanted to fold ever since I had seen a picture of it).

This is a wonderful book and a real asset to the origami

artist. This is one of those book that I hope will always remain in print so that new folders will be able to be exposed to it.

CREATING ORIGAMI has a cover price of \$29.95 US (ISBN 1-889856-02-9) and is available online at <http://www.origamido.com>

Designing Sonobe Units I

Over the last twenty years, I have designed a lot of variations of the Sonobe unit. I have also designed a lot of complex variations that resulted in absolutely no visible variation whatsoever. I would like to share with you a few tips so that you can create your own variations without running into the same sorts of dead ends.

The standard Sonobe unit is a slanted-diamond shape made up of four right-isosceles triangles. It is relatively easy to alter to look of these triangles, but many variations will simply disappear after the units are combined.

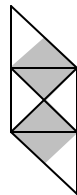


Figure 1

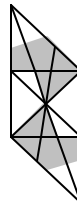


Figure 2

variations will slightly shift the visible area (see Figure 2). Regardless of the shift, the amount of space visible after assembly will remain about the same. This amount is equal to half the surface of the unit with minor variation due to paper

creep.

Keeping these areas in mind when trying to create your own units should help improve the percentage of successful variations.

Next month: The non-standard unit.

Back Issues

For anyone interested in back issues of Scaffold, all back issues can be found online at

<http://www.origami4you.com> (just follow the Scaffold link at the top of the page). While you are there, the site also offers diagrams, links to other sites, and plenty of other origami-related information.

The Models

Animals big and small, Iso-Area Folding, geometrics, crease fold patterns, and asymmetrical units make up this month's selection of new models. Happy folding.

Iso-Area Icosahedron

This geometric model, sent in by Mark Leonard, uses the technique of Iso-Area Folding. The model is also presented as a crease-fold pattern for a little extra challenge.

Box Dragon

This is another design from the creative imagination of Jim Adams. Jim seems to be the only other person I have met who is as into designing dragons as I am. More of Jim's work can be found at <http://members.aol.com/jeadams1>.

Mouse

I was surprised to find this design of mine in the 1996 Annual Collection.

I had not been notified that it would be used. The diagrams had been changed by someone so that they would fit onto one page. Unfortunately the changed diagrams did not result in the correct model. You may compare these diagrams to those in the Annual Collection if you

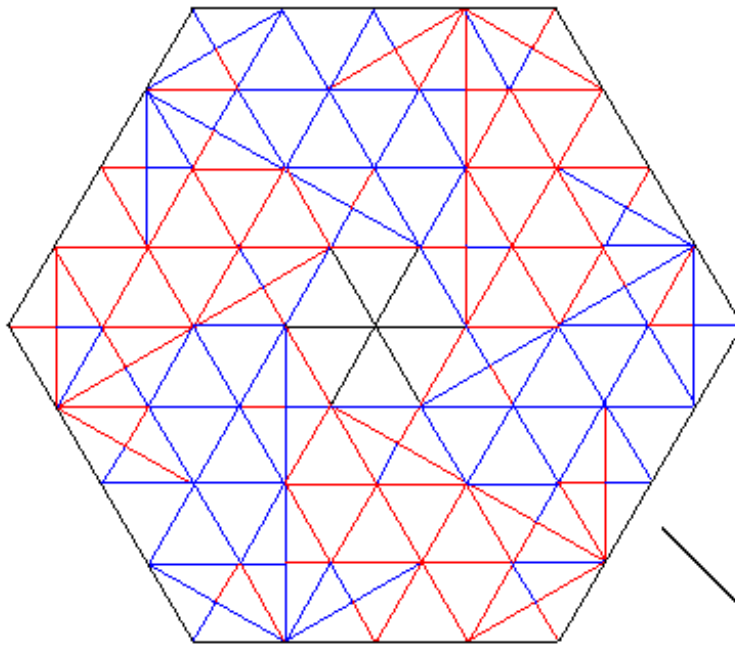
would like to see what happened. This model was inspired by the Rabbit designed by Master Yoshizawa in ORIGAMI MUSEUM 1.

Sonobe: Asym 1
This modular unit is one of my attempts at an asymmetrical

Sonobe unit. Assembly into a 3-piece (stellated equilateral triangle) or 12-piece (stellated octahedron) model requires that the folder pay attention to the two different ends of the unit.

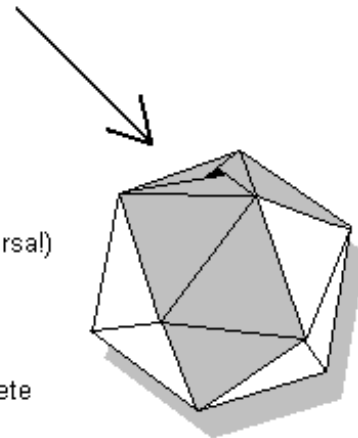
Iso-area Icosahedron (crease pattern)

Mark Leonard



This icosahedron is folded using Kawasaki's iso-area method. Blue lines are valleys, red lines are mountains (or, indeed, vice versa!)

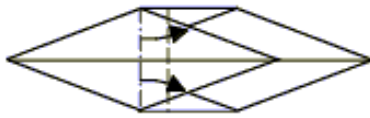
If you are unfamiliar with iso-area folding, try making the iso-area octahedron from *Origami for the Connoisseur* by Kasahara and Takahama first. This should give you enough clues to complete the icosahedron.



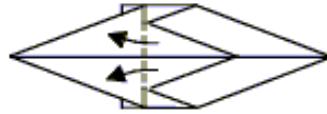
BOX DRAGON

- Start with colored stretched bird base.
- A 6 inch square makes a 3 1/2 inch long model.

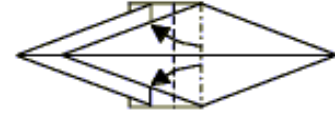
Jim Adams



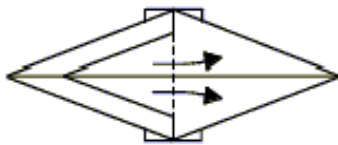
1. Start with a colored stretched bird base.



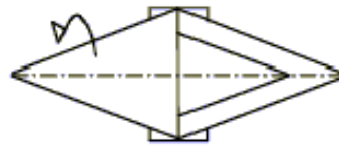
2.



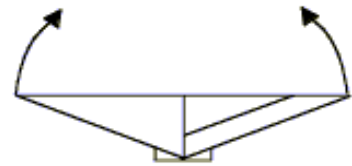
3.



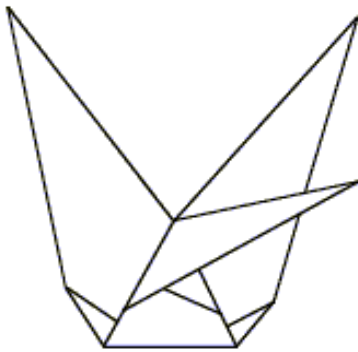
4.



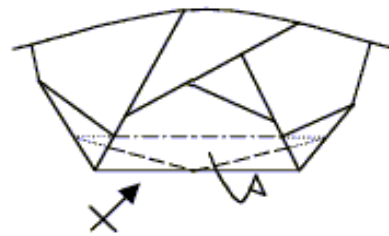
5.



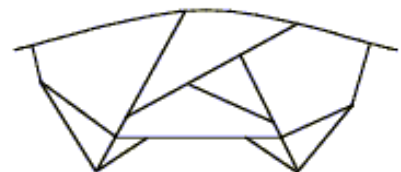
6. Rotate ends up as far as they will go.



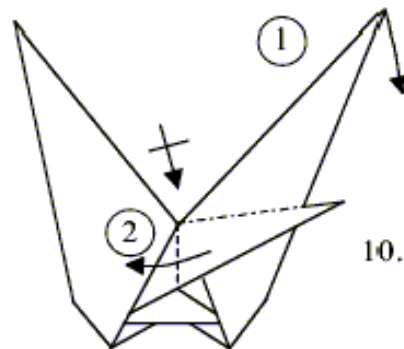
7.



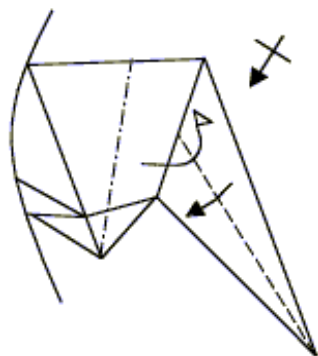
8.



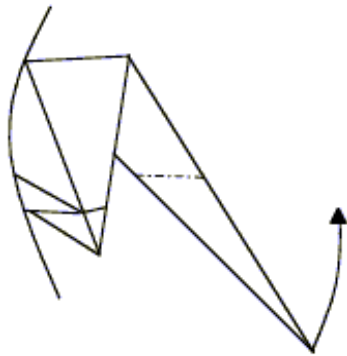
9.



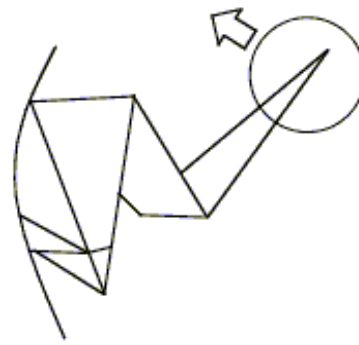
10. Inside reverse fold tail, then swing wings to the left.



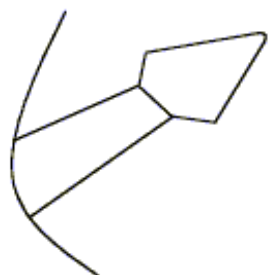
11. Inside reverse fold.
Repeat behind.



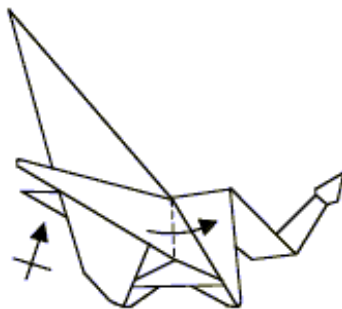
12. Inside reverse fold.



13. Open end of tail out and
press flat. See step 14.



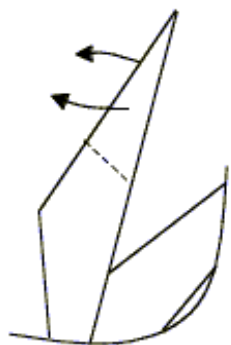
14.



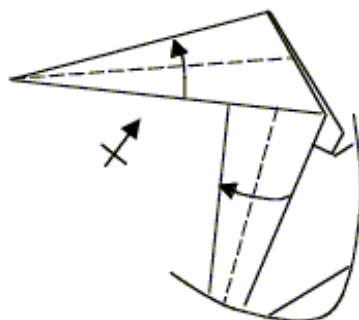
15. Swing wings back to the
right.



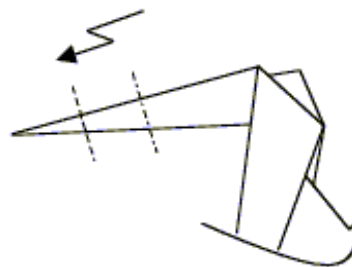
16. Outside reverse fold.



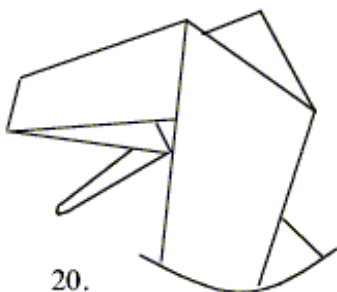
17. Outside reverse fold.



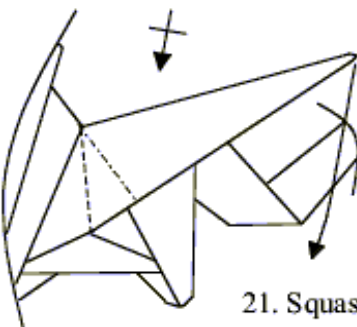
18. Swivel fold. Repeat behind.



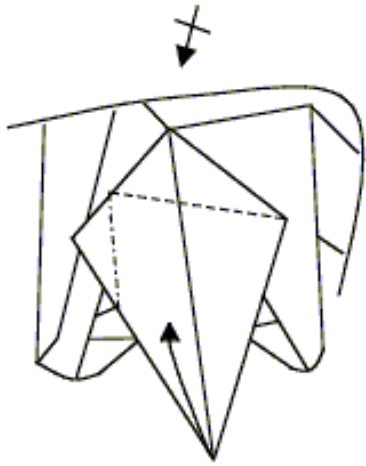
19. Crimp fold.



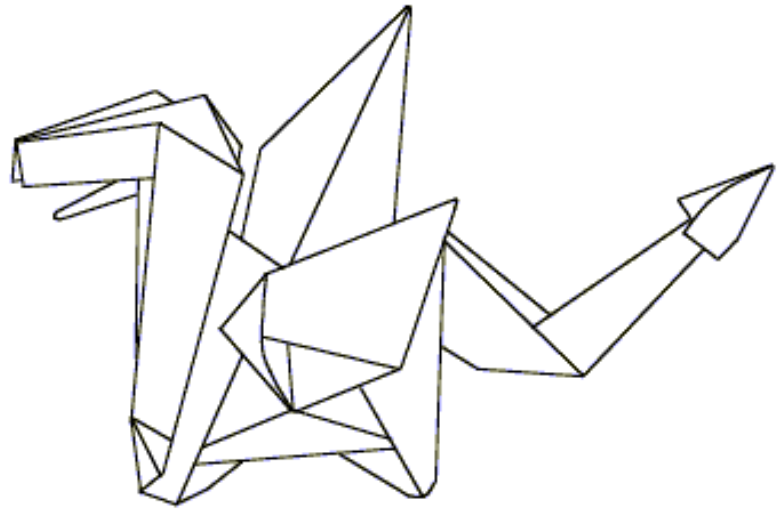
20.



21. Squash fold. Repeat behind.



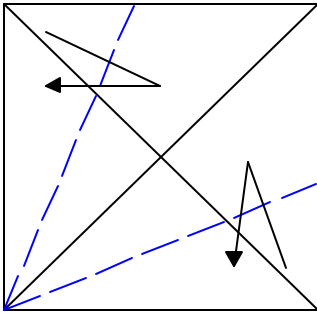
22. Open wing. Repeat behind.



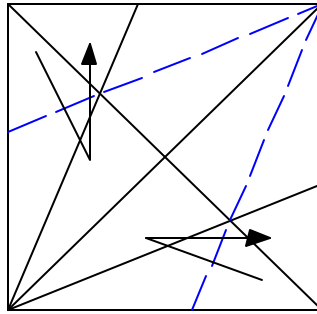
23.

Mouse by Joshua Koppel

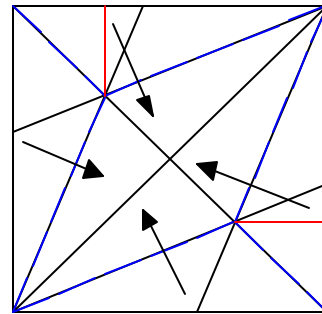
Begin with the desired color face down.



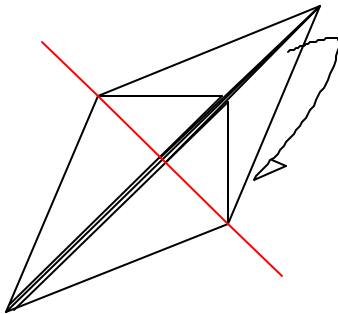
1. Fold and unfold.



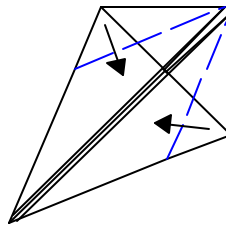
2. Fold and unfold.



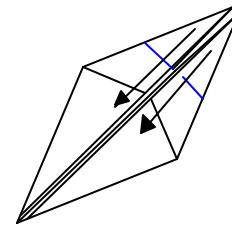
3. Collapse to a Fish Base.



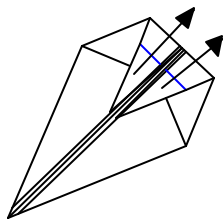
4. Fold in half.



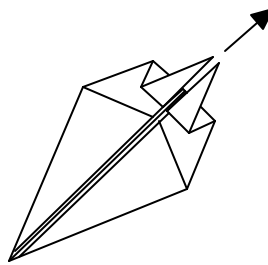
5. Fold short edges to center.



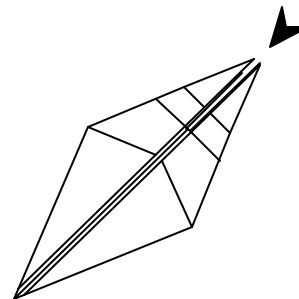
6. Fold points down.



7. Fold point part way back.

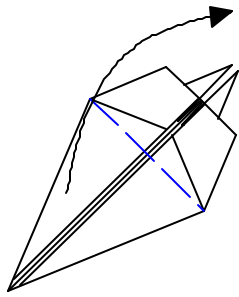


8. Unfold points.

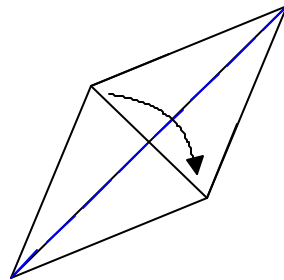


9. Sink points.

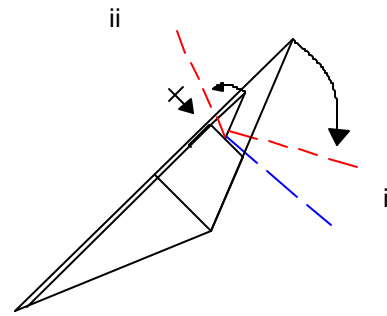
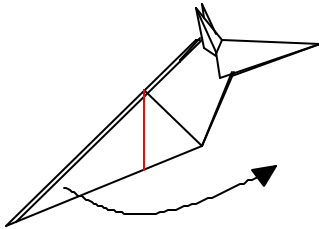
Mouse by Joshua Koppel



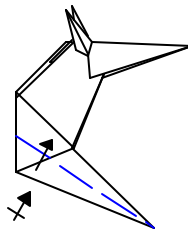
10. Fold flap up.



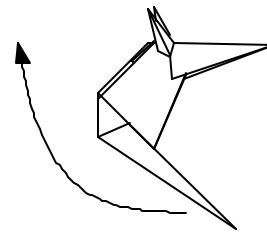
11. Fold in half.

12. i) Crimp head down
ii) Squash ears.

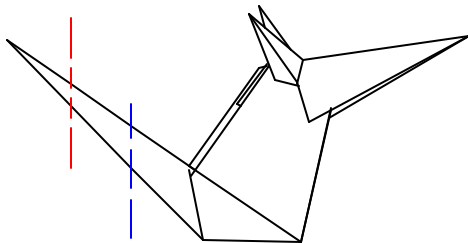
13. Reverse-fold tail.



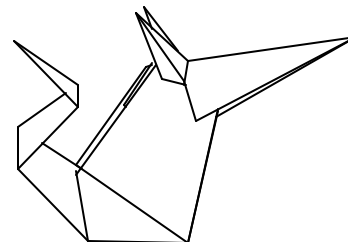
14. Narrow tail.



15. Swing tail back.

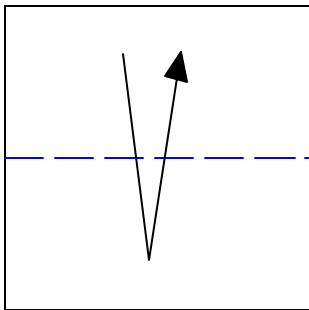


16. Crimp tail as desired.

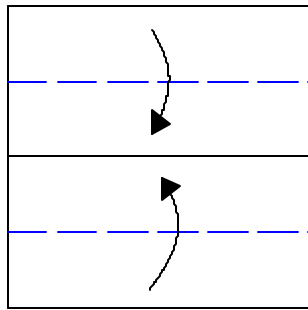


The finished mouse.

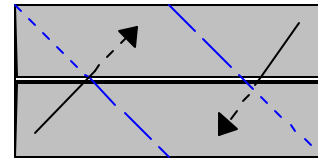
Sonobe: Asym 1 by Joshua Koppel



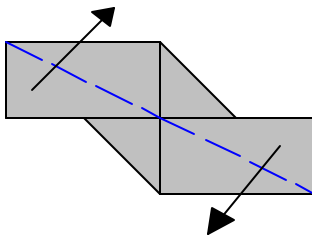
1. Fold and unfold.



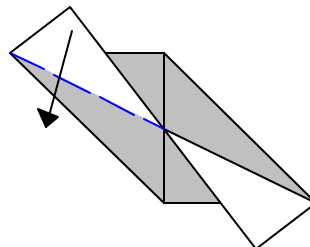
2. Fold edges to center.



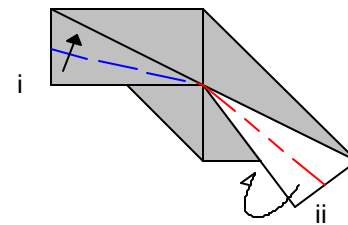
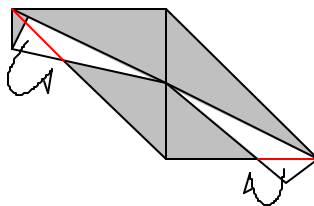
3. Tuck corners under flaps.



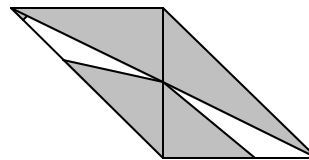
4. Fold flaps out.



5. Fold one flap back.

6. i) Fold flap over
ii) Fold flap under.

7. Tuck corners behind.



The finished Asymmetric unit.
Combine 3 or 12 units to create
polyhedra with alternating stellations.