



ARCH1291 - Visual Studies II
FALL 2014
Assignment 1: Folded Models

ASSIGNMENT INTRODUCTION

This assignment will examine the translation of a developable geometric design from a 2-dimensional paper sheet into a 3-dimensional folded, or origami, paper forms. One of these forms will then be "reverse-engineered" into the digital Rhino 3D environment through the use of the Microscribe G2X digitizing arms in Lab 813.

We will use the technique of folding to explore the formal and space-making potential of folding 2D planes into developable, 3-dimensional surfaces. An ensuing digitization process will introduce you to both the challenges and benefits of translating an analog or "hand-based" design technique into a digital model, from which additional information can be extracted from the geometry.

ASSIGNMENT RESOURCES

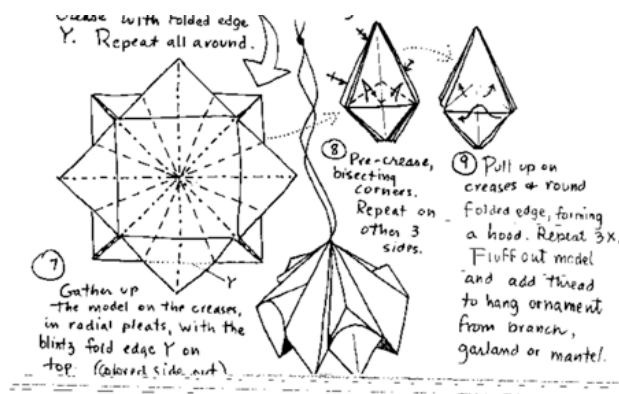
Folding Design Options & Diagrams

- <http://openlab.citytech.cuny.edu/12101291coordination/folding-diagrams/>

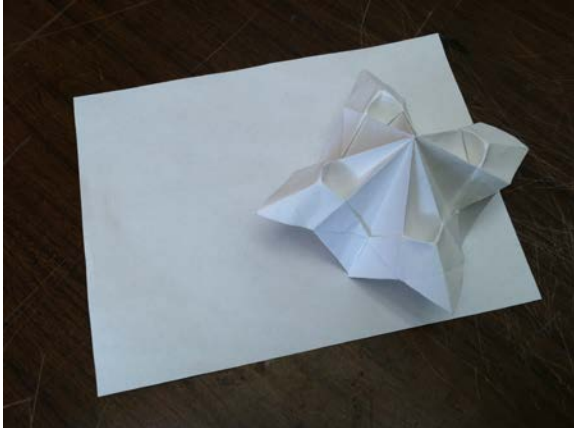
INSTRUCTIONS

1. Choose two of the provided folded designs from *Folding Techniques for Designers* and download the corresponding folding diagrams. Print the diagrams so that it fills a letter size sheet of paper – otherwise your model will be too small to easily fold and digitize. You may use folding diagrams other than those provided only if you get approval from your professor. Great online resources for folding and origami include:

- <http://www.origamitessellations.com/category/diagrams>
- <http://www.happyfolding.com/diagrams>
- <http://www.origami-instructions.com>



2. As mentioned above, it will be easiest to begin with a simple letter or tabloid size sheet of office paper, particularly if you start by printing the fold pattern. Fold your sheet of paper up into a 3D origami form. Be patient as it may take several tries to get it right.
3. Repeat the process with a different form.
4. Choose one of the two forms and make a change to the form by adjusting the original drawing.
5. Label the models and your adjusted drawing with your name and ARCH 1291, SP14.
6. Photograph your models against a black background (see the photography station in V813, taking at least 50 pictures. You should not use a cell phone camera. The Department has cameras that may be checked out with your ID (Inquire in Room V818). When you download the images to a computer, save them at 200-300ppi as .tif files.
7. These models and photographs are due at the beginning of the next class.



GRADING To receive a grade, at least 3 .tif photos of your models must be submitted to your Dropbox folder by the beginning of the next class and you must bring your folded model to class with you to be collected. Assignment 1 will be graded as follows:

1. Are your models and files labeled properly? 10%
2. Did you successfully fold paper sheets into two origami pieces and adjust/draw up a third pattern? 50%
3. Is your model craftsmanship strong? 20%
4. Are you successful in explaining both the concepts and geometric elements contained in your models? 10%
5. Are your photos well exposed, of 200ppi resolution or higher, and show clearly the forms created? 10%
6. Did you fold and digitize a third model? 25% EC