Techniques for Designing Modular Mandalas

A starting point for a discussion
CfC3 - Bogotá, Colombia 2023

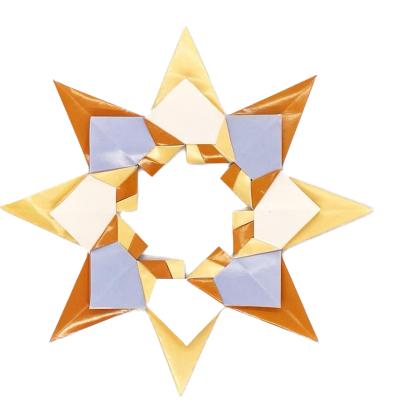Matthew E. H. Green

Basic Considerations

1. Level of complexity

❏ Since modular models require many units, they're generally kept fairly simple.
❏ The level of complexity you choose depends on both your personal folding preference and on the people who hope will fold your models.
❏ Your choice of base already sets a baseline of complexity for the model.

2. Base

❏ Traditional bases: kite base, waterbomb base, bird base… (It is perhaps easier with modulars than with other kinds of models to reproduce someone else's work accidentally, though)

❏ Original bases: harder to come up with, but more likely to actually be original (still no guarantee)
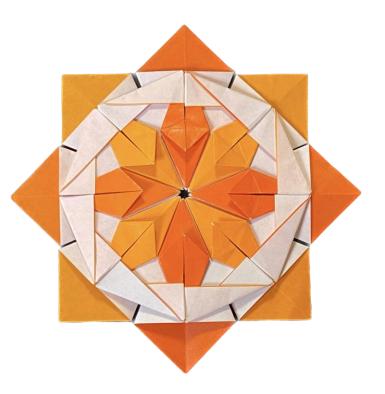
3. Angle of connection

- ❏ Determined by the jointing parts and/or the base used
- ❏ Determines the number of units to make a flat model

4. Joining method

❏ Tab and pocket
❏ Folding/curling layers together
❏ The joining parts can also be decorative
❏ Some creators simply use glue. I don't.

5. Decorative elementes

- ❏ Overlapping layers
- ❏ Layers that cross units
- ❏ Color change
- ❏ 3D elements
- ❏ Pleats/frills
- ❏ Motifs from traditional origami
- ❏ Play with symmetry and asymmetry
- ❏ etc.

6. Interaction of units

- ❏ Sometimes a lock works with two units but not with three (or vice versa)
- ❏ You can't know what a model will really look like until you put at least 2, 3, or more together (depending on the model)
- ❏ You can mix and match compatible units

My Design Technique

1. Pick or design a base

❏ Most of my models are made from just a few bases.
❏ I almost always use an existing base, either one of my own or a traditional base.
❏ If it's a traditional base, my first goal is determine what lock to use, either a familiar one or a new one (mostly experimentation).
❏ If designing a base, I start with the angle, then a strong lock. The extra paper for decoration is mostly a consequence. Sometimes I plan ahead with pencil and paper.
❏ **This is the most difficult step for me, and where I have most curiosity about what others do.**

2. Work on the more decorative part

❏ New models are mostly the result of experimentation, usually trying to apply some specific technique, or achieve a specific decorative goal, etc

❏ A great tip from Ilan Garibi: identify elements, techniques, or styles I've used with other bases or models, and apply the same ones to new bases