

paper mosaics sampler 1



Origami Tessellations by Alex Bateman

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basic instructions



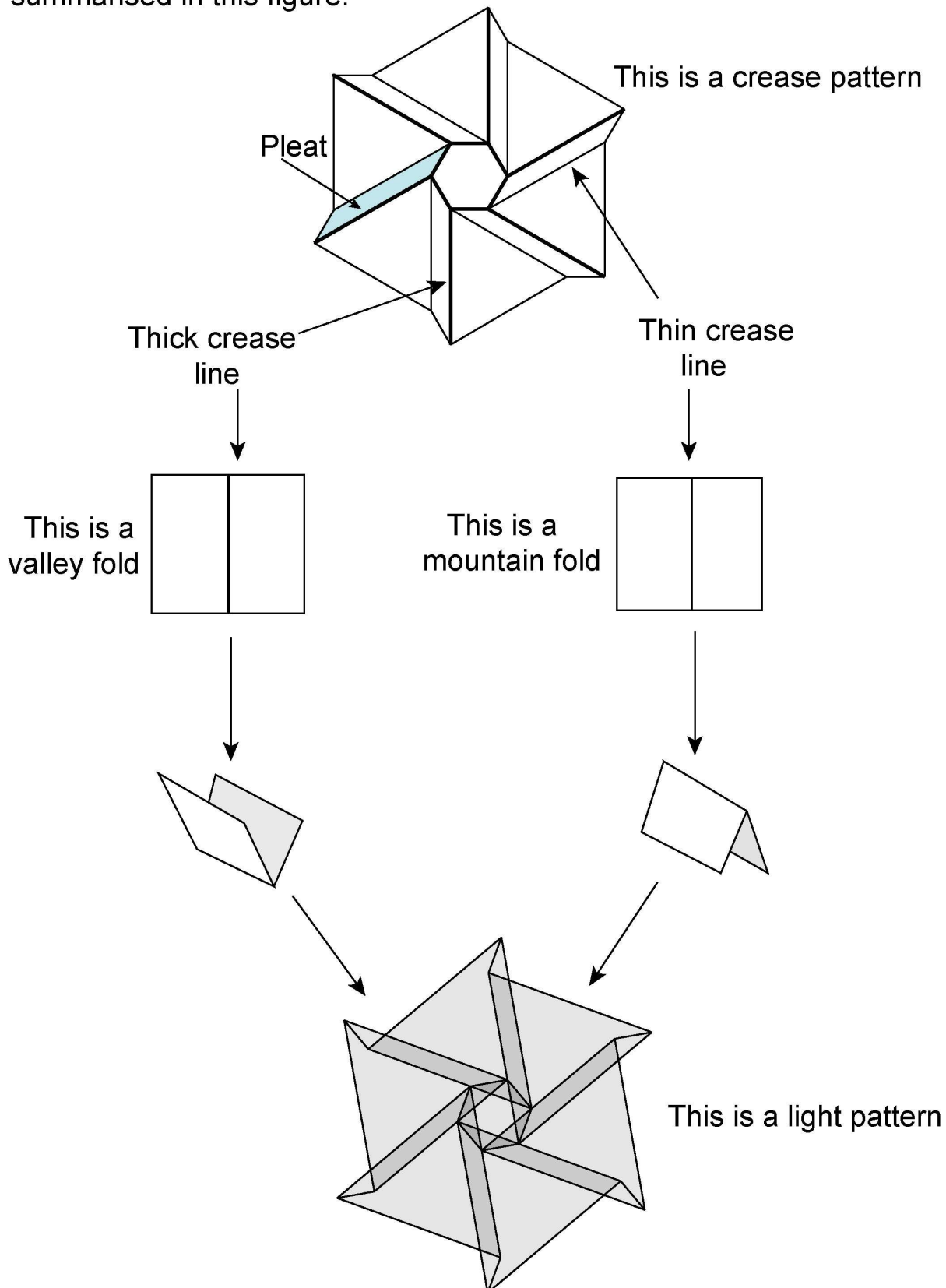
This book contains a collection of twelve Origami Tessellation designs I have made over the past ten years. I have not used standard origami notation for these models, it just is not possible to provide step-by-step instructions. To fold them successfully I suggest the following method.

1. Photocopy the pattern onto transparent or thin paper.
2. Fold the pattern on a flat surface and make the creases firmly with a fingernail. Be careful to make the crease lie on the line and not extend beyond it.
3. Fold ALL the thin lines as valley folds. Then turn the the paper over and fold ALL the thick lines as valley folds (These thick lines might be visible through non-transparent paper).
4. Gently include all the creases you have made by lightly pushing the edges of the paper together. This makes parts of the model twist. Make sure all the creases are going in the right direction and correct any that are collapsing in the wrong direction.
5. Be patient.
6. Flatten the model completely and hold up to the light to see the final pattern.

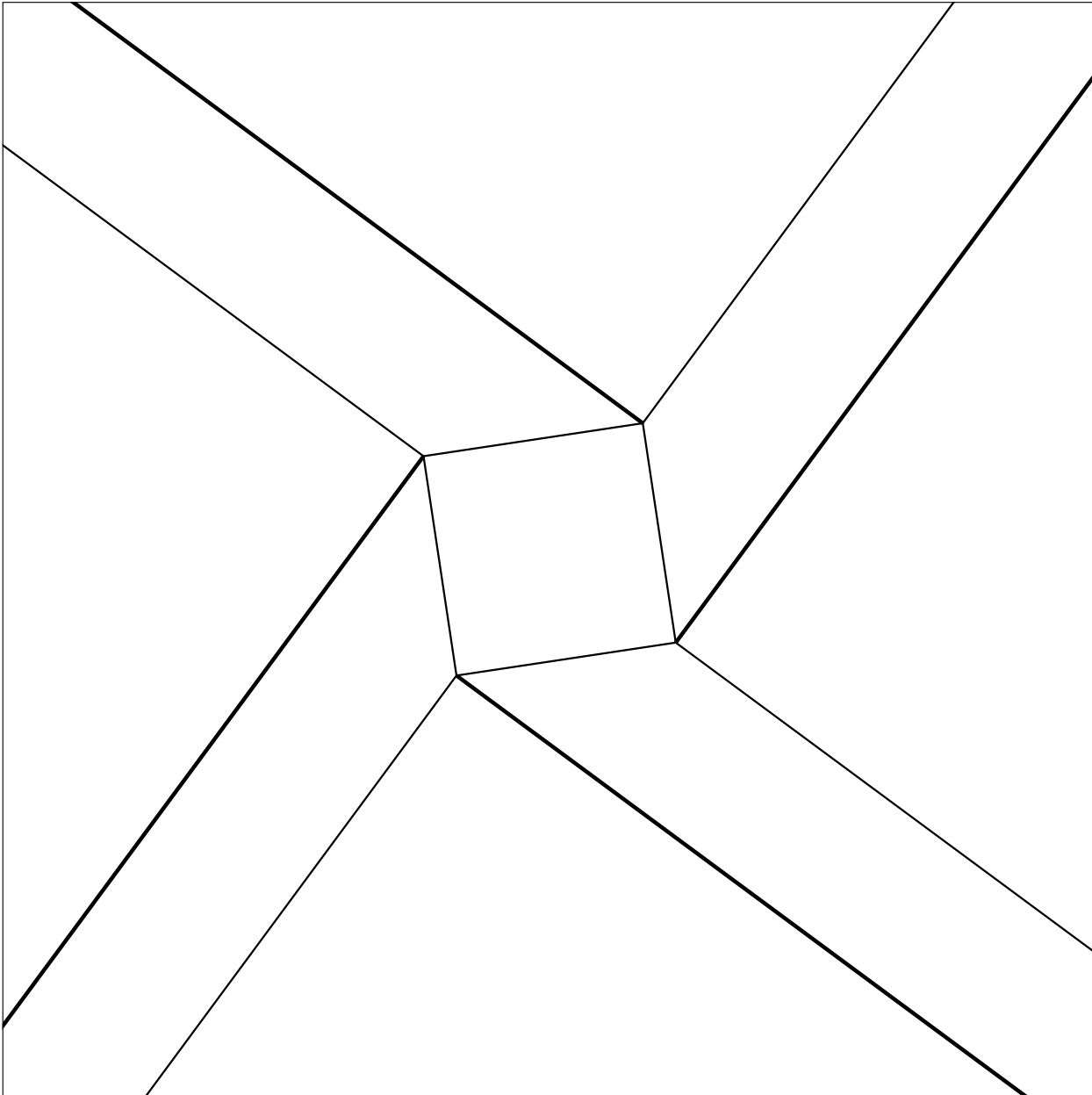
terminology



Many of the terms that you will come across in the rest of the book are summarised in this figure.

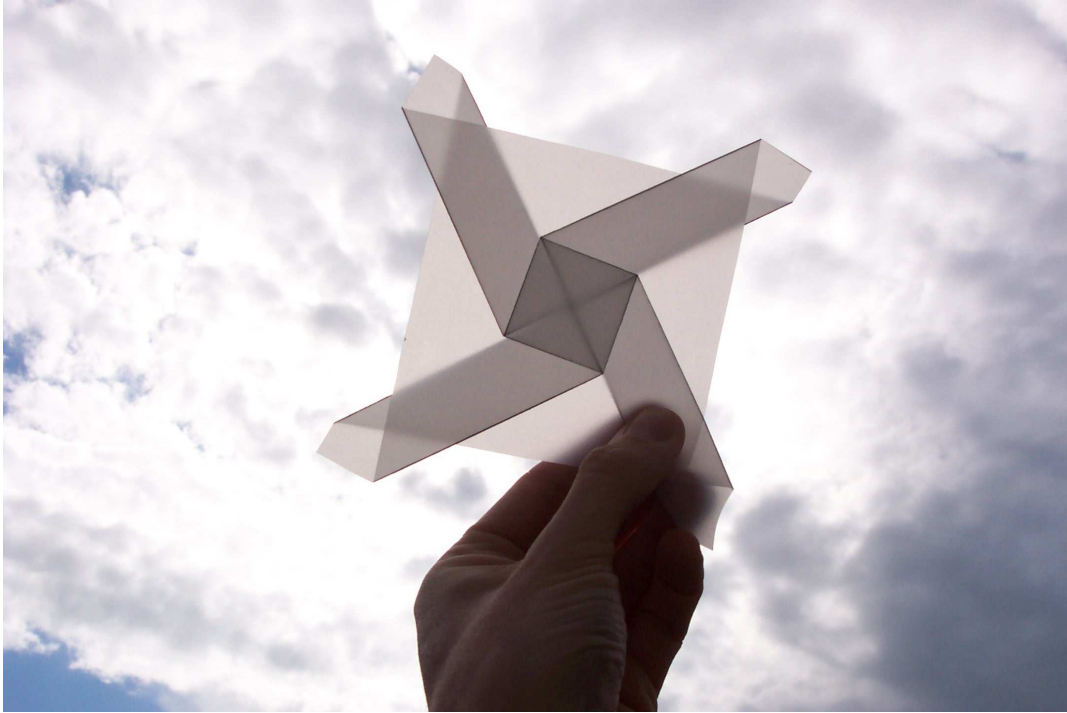


square twist exercise

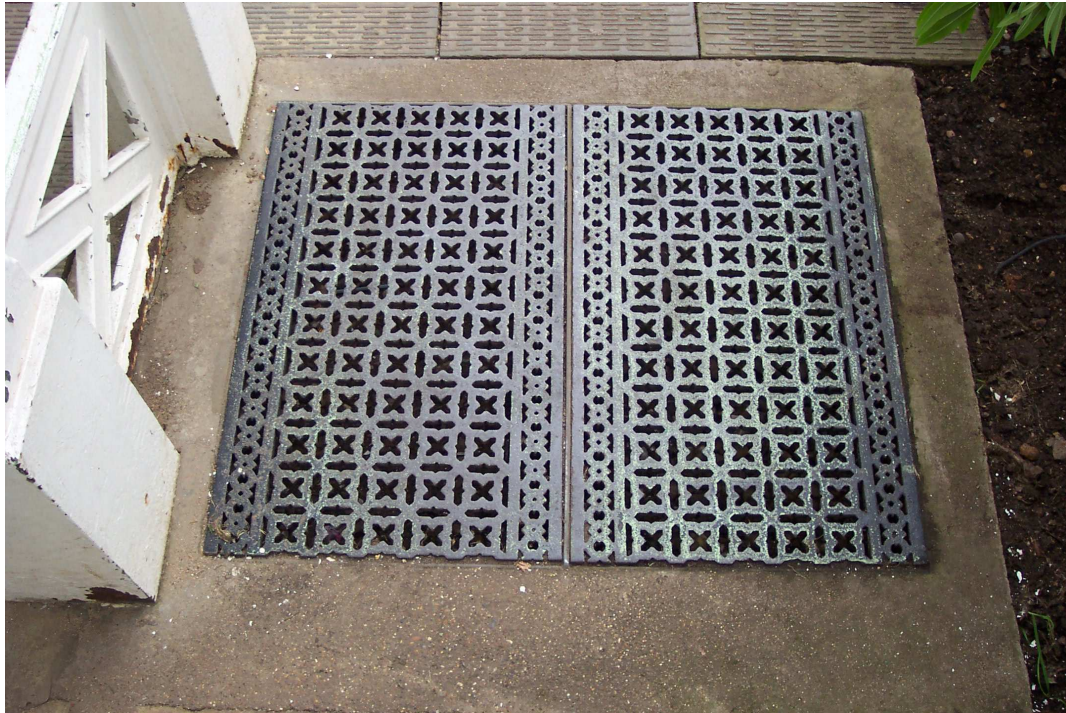


This is a simple example to help you understand how to collapse a simple twist fold. Later on we will combine these simple elements or tiles into an origami tessellation.

finished square twist



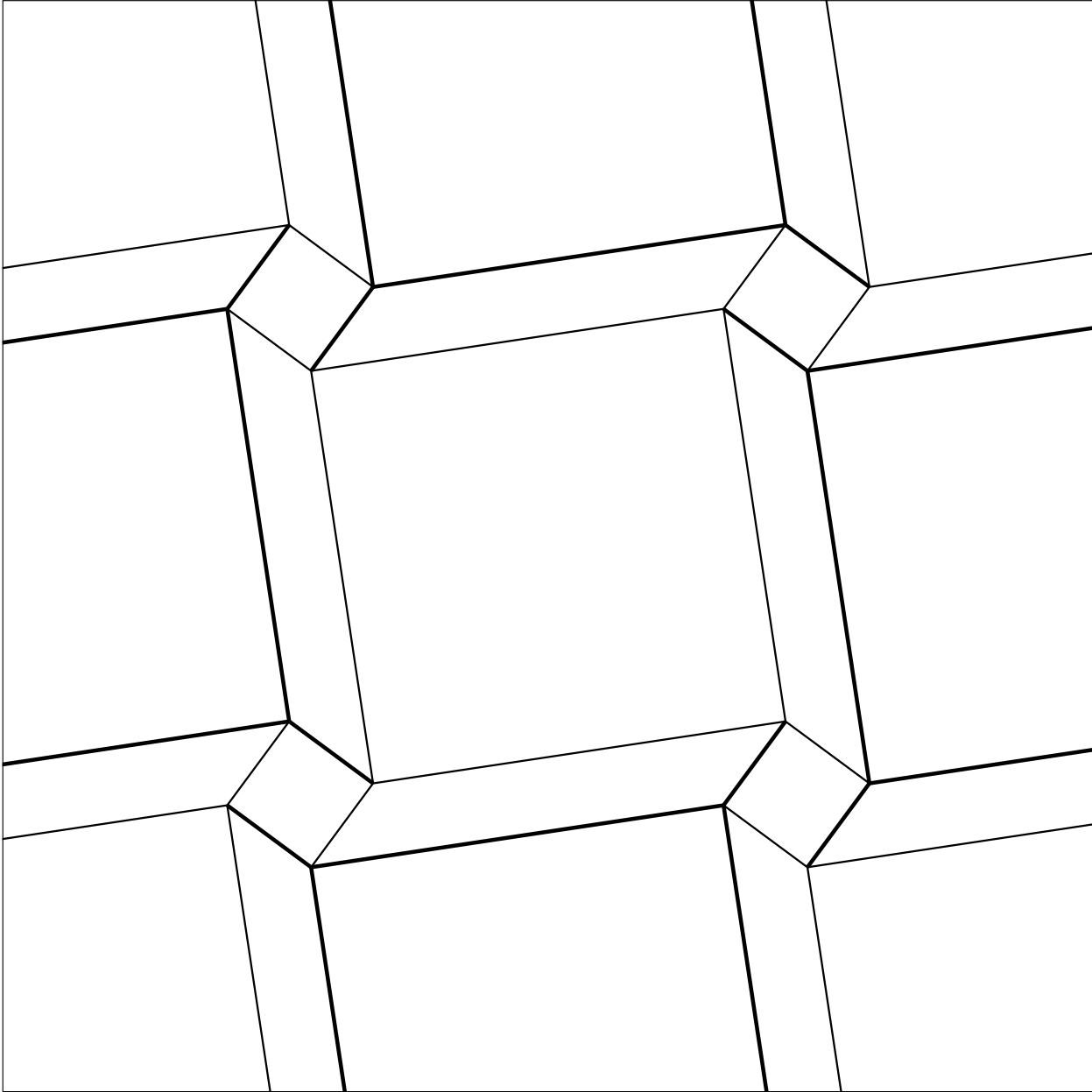
patterns and tilings



Geometry is all around us, in nature as well as the manmade objects that we often take for granted. This ironwork is in one of the glass houses at Kew Gardens and is hardly noticed by passers by.

The book "Patterns and Tilings" by Grunbaum and Shephard (ISBN:0716719983) is the essential guide to geometric patterns. It is an extraordinary book that gave me a lot of inspiration.

putting it together



Now we put four twist folds together to make our first real tessellation.

my first tessellation

