

SHAPING
PAPER

Breathing *Life*
into **ORIGAMI**



ŠEVEROV
DĀVIDĀŠA
GĀCHEPAPIER

TABLE OF CONTENT

Foreword	3	Shadow:	
Preface	5	Giving it Depth	21
PART I: ORIGAMI AS A MEDIUM FOR ART			
Some Origami Philosophy	9	Iron Skeletons	
Constraints	9	for Weightless Sculptures	22
Rewards	10	Finishing and Painting:	
What this book shows	12	from Origami to Object	24
Perspectives	13	▶ Ink washing	25
Seeing vs. looking	13	▶ Dry-brushing	27
Origami is a handicraft	14	▶ Chalking	29
Size matters	14	Materials	30
Paper reserve	15	Paper	30
Curves and volume	16	Choosing and Treating paper	31
Design Tools	17	Glue	31
Forgetting origami	17	▶ Preparing MC	32
Wet-folding:		Cloth	32
Life and Nuance	18	How I prepare my sheets	34
▶ Spraying	20	▶ Aluminium Sandwich	35
		▶ Duo-Coloured Sheets	
		for Wet-folding	36
		Shaping tools	39

PART II: TEN FOLDING PROJECTS

Symbols	40
Usual symbols	40
A few more symbols	40
Bad Penguin	42
Piglet	48
Donkey Portrait (a self-portrait)	53
Lazy Cat	58
Horus	66
► Embedding a wire-frame	68
Little Watchtower	74
Aristo-braque	89
Master Fox	98
Pareidolia	103
The Dawn of Aquarius	116

PART III: PORTFOLIO

Breathing life into origami	123
Portraits	123

Crumpling	131
Crumpling with a Vengeance	132
Paper Strips	135
Inspiration	138
Being Grateful	146

APPENDICES

Further Reading	148
A Riddle	149



Dry-brushing



1. Using the stiff brush, apply the colour everywhere as deep as possible. It will naturally stick on all edges and surfaces which would normally catch more light.



2. I am now far happier with the result than this somewhat gloom figure.

- iv. Now that your brush is ready, proceed to **brush the edges** of the model. While you should cover the whole model, by concentrating on its edges and brushing quickly and repeatedly, the tiny amounts of colour which have remained trapped between the hair of the brush will attach to any protrusion of the model and make them much easier to read.

In my experience ink washing and dry-brushing can be used in any order and repeatedly, until you

are satisfied with the colours, provided you let the model dry properly after each ink wash. The only limitation is how much your sheet will bear before it begins being too fragile.

As you dry-brush it, the model itself should at all times remain dry to the touch. Every time you need to load the brush with more colour, make sure to remove as much as possible before letting it touch the paper. Patience is required here!

Bad Penguin



An introduction to curved folds

Even though this is one of the simplest-looking models in this book, folding it well requires practice with curved folds. Wet-folding turns folding curves into a natural process, and so the *Bad Penguin* is also a good introduction to this technique.

Additionally, it also introduces a favourite folding move of mine, the “three point clamp” (see page 40).

Variations

In general I prefer my inventions to be stand-alone pieces, but this is a model which shines in company.

Fold several penguins with small variations in posture and display them as a set for best effect. The way the neck can be articulated to turn the head is key, as it allows such scenes to come alive.

The present diagram gives relatively precise references, which work very well if you want to fold the same penguin as the one shown in the middle of the team (lower row). But its structure is so simple that you can deviate significantly from these references and obtain various interpretations which will all easily be recognisable as family members.

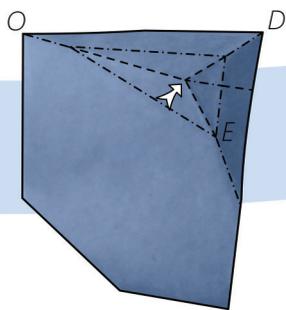
I suggest that you first try to follow the diagram precisely until you are able to achieve a good result and then proceed to change proportions and only then play with variants, such as those shown on the left. All members of the gang on the picture were folded from the same size of paper, the main changes reside in variations on the first step.

By the time you master this model, you should easily be able to make variations of your own by lengthening or shortening the beak point, turning it into a tie or reversing it into a cigarette for example: The rabbit ear of steps 1-4 can be made larger, it can reach down further on the edge for an overreaching petal-fold or it can even be skipped entirely.

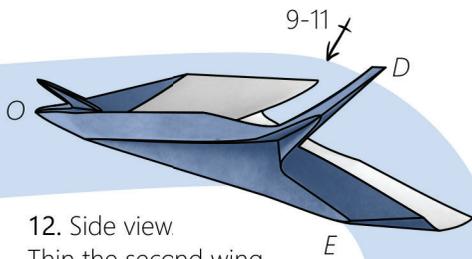
The fellow on the right results from omitting steps 1-4 and 37-38, giving him this stiff look.

Paper

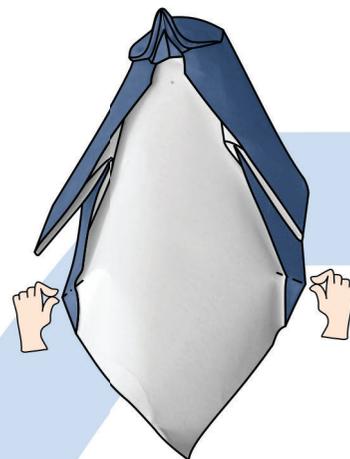
The model is perhaps the only one in the book which can actually be dry-folded in kami paper with reasonable expectations of good results. Still,



11. Open-sink.

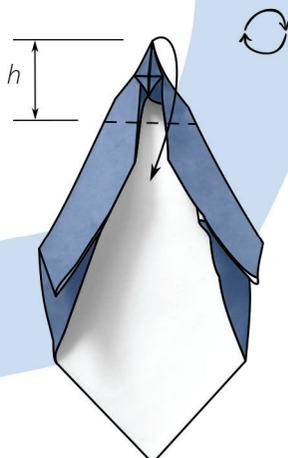


12. Side view.
Thin the second wing.

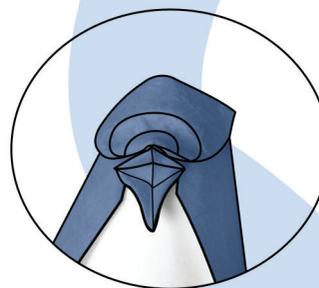


20. Pinch both edges to start forming the belly.

14. Roll the beak up, so as to keep it away from the body in the next step.



13. Fold down.
 h = head height
+ beak height



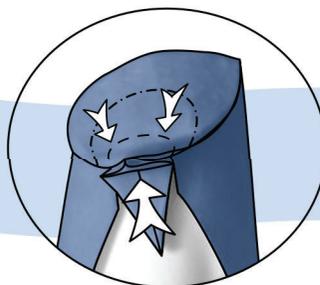
19. Result.



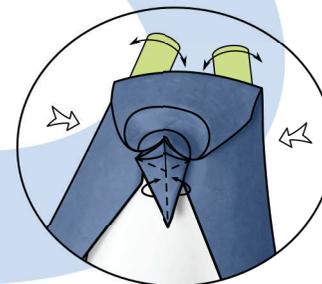
15. Roll the sides and the top of the head to the back.



16. Result.



17. Three point clamp: this will create the round crimp which forms the eyes.



18. Pinch the lower beak and push the sides of the neck in a rolling movement to round it.

Little Watchtower



Origami with texture

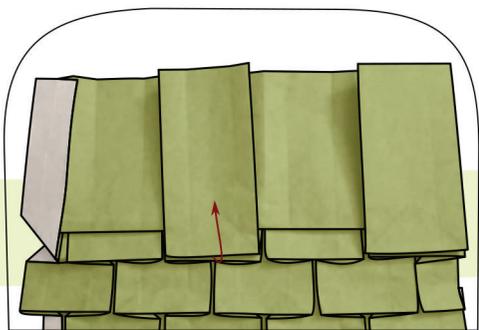
When I first discovered that there are figurative origami models which make perfect use of tessellations I was swept away. Not only because for the untrained eye it is almost impossible to accept that the model was folded from a single uncut piece of paper, but, perhaps more importantly, because being able to add texture to origami models in such a way overcomes the lack of a colour palette.

Design

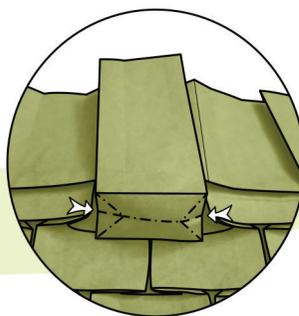
At first sight models such as Robert Lang's Koi, Siphon Mabonna's Fugu or Satoshi Kamiya's Ryujin seem impossibly perfect and forever out of reach. How does one even try to design a model which captures such tiny details? How does one blend these into the large structures of the object itself and reach equilibrium? I still marvel about the fact that such exquisite details can be interwoven coherently into a whole - so how is this possible?

While it is not the case for all such models, one answer resides in the factorisation of two processes. By breaking the problem into two distinct parts, each dealing with a different scale, one can perform this origami magic : First, one folds the tessellation itself, which yields a sheet which acquires the texture or background pattern of the final model but can usually be folded flat. Second, the "actual" structure which gives the model its large scale properties, folded from the tessellated sheet.

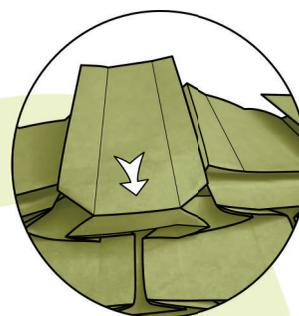
Thus once this is understood, "all" that is left to do is to find a subject which will put the technique



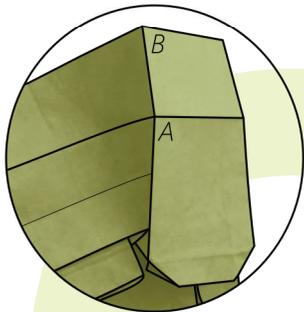
F12. We now extend the merlons downwards: open the bottom layer to unsink it.



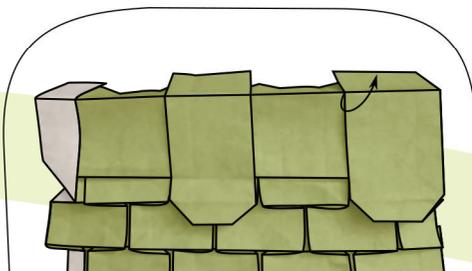
F13. Press the sides to form new mountain folds as shown.



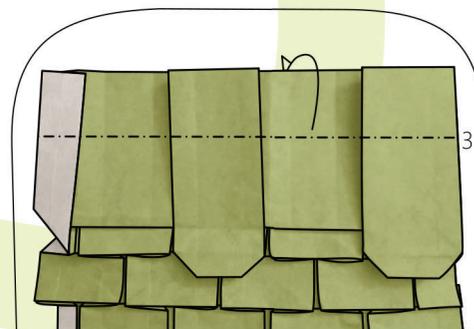
F14. Flatten completely, then repeat F12-F14 on each remaining merlon.



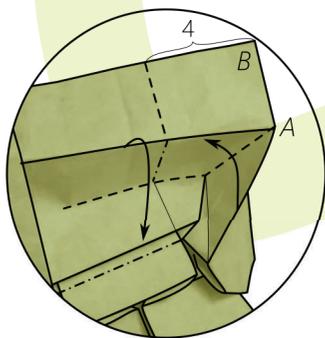
F17. Note the position of corners A and B.



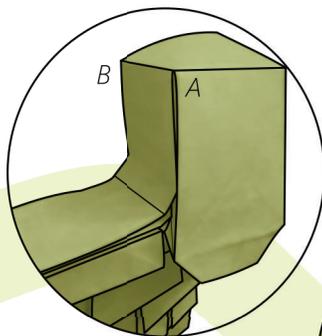
F16. Open the corner.



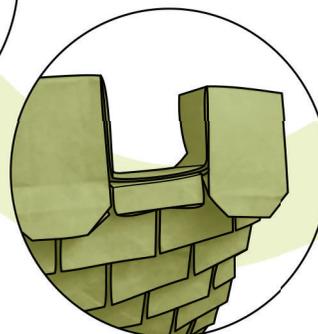
F15. Mountain-fold at 90° along the prescored line.



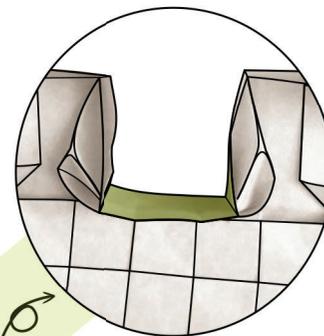
F18. Collapse the crenel.



F19. Result.



F20. Repeat on all crenels.



F21. View from the back. The layers do not all align at 90° angles, this keeps the crenels under tension.

PART III: PORTFOLIO

Breathing life into origami

The models I am interested in folding can be realistic or caricatures. Sometimes they tell a story, a joke, a mood or a sentiment. But all the inventions that I consider successes have to pass two tests.

First, they must have a key, a little like a puzzle, something to decode them with. This is what brings a piece to life for me, making it more than an “origami model” and giving it a narrative quality.

Second, they have to stand the test of time. Right after one finishes a piece, it is almost impossible to judge one's own work objectively, I seem to like most of them at first. But if after some weeks I still like a piece in spite of all the imperfections I am now able to spot, then perhaps I am onto something.

Here I would like to showcase some of the models I have invented over the years which fulfil both conditions for me.

Portraits

The human face is an infinite reservoir of inspiration for artists, no matter what the medium, origami is no exception.

Origami masks offer a special opportunity to achieve both aesthetically pleasing and efficient

design. The relatively low number of long points they require in combination with the mind's propensity to accept so many shapes as “faces” are all it takes.



Vieux soldat, 2012

mulberry on elephant hide, 30 cm square