

ASTONISHING BOOKS WITHOUT BINDING

### SIMPLE ORIGAMI

LEPORELLO - A MULTIFACETED ACCORDION BOOK

BRIEF HISTORY OF LEPORELLOS - JACQUES DESSE

FOLDED RECTANGULAR STRIP LEPORELLO - SIMPLE FOLD ORIGAMI BASE COCO TÉXÈDRE - HÉLÈNE BAUMEL - MARJON MUDDE

TRIANGLE, RECTANGLE, HEXAGON, SPIRAL BASE LEPORELLO

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## ■ TURKISH MAP SQUARE BASE

# Giną Pisello

## UNITED STATES

Gina Pisello glorifies paper in astounding creations that, while based on simple forms, often require mathematical calculations such as her studies of spirals.

"I've played with paper most of my life. First, when I was a little girl, I folded simple flowers; later, as an adult, I learned to make artist books. Recently, I've also begun to make sculptures. I'm fascinated by lines, shadows and textures. I force myself to transform my fetish material into dynamic three-dimensional sculptures that invite the viewer to enter and find hidden depth and meaning. I explore themes of time (on a personal and geologic level) and nature in all its exquisiteness.

It made sense to me to use a fold in the maps because I'd made travel books such as The Road to Spring and Companion Star.

One of the advantages of Turkish and Hungarian map folds is that they're small when they're closed but open easily to reveal a larger format.





• The Road to Spring, Gina Pisello, 2015.

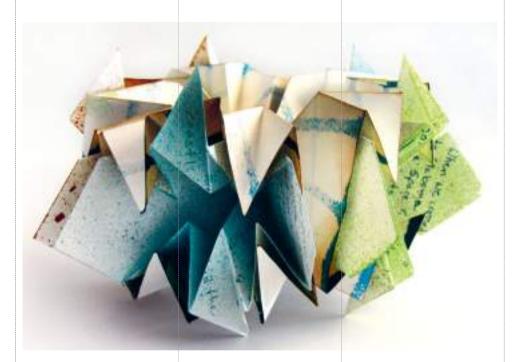
As a printing technique, I chose color spray ink for the deep blue of Companion Star and the same inks (Tim Holtz Distress Inks) for the colors of spring in The Road to Spring. To make the lines of the map, I poured ink onto a large sheet, a technique I learned from Jill Berry. I wrote the text of each book by hand and purposely divided The Road to Spring into several stages, following our spring journeys between New York and Alabama to visit family. Unlike many of my works, these two books are autobiographical."

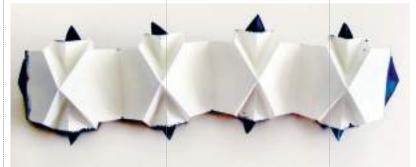
Gina Pisello, February 2020.

www.ginapisello.com



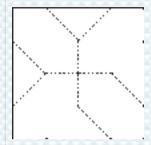
Companion Star, Gina Pisello, 2015.





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# ■ HUNGARIAN FOLD HUNGARIAN MAP FOLD "X" FOLD





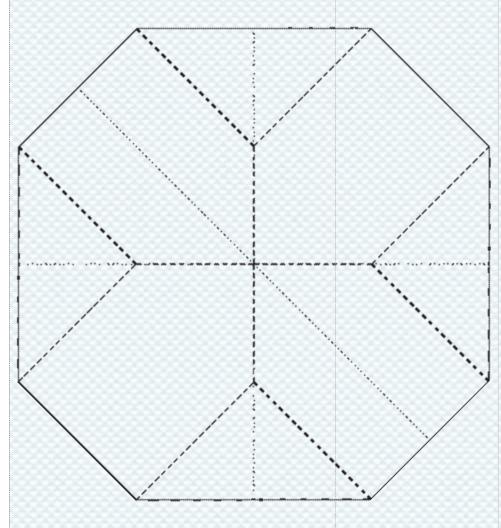
•What is the difference between the Hungarian map fold and the preliminary base? The preliminary base functions as a starting fold. After it is mode, it suffices to field the open side mountains toward the center - as hown - to obtain a rhambold shope. In the drawing, the angles of the square have been cut, resulting in an interesting shope.





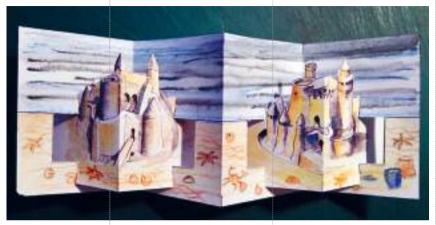
 Tourist map of Stockholm, Stockholms Enskilda Bank advertising material.

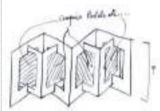




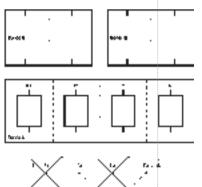
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# ■ DOUBLE OR TRIPLE CONCERTINA





· The double concertina is obtained by fitting together two accordion-fold stribs in which a slit has been made halfway up. The strip that contains the background has the slits going up and the other strip has them going down. This technique is similar to that of slice forms applied to pop-up books. This system offers a great deal of flexibility when folding the structure up small, since each assembly functions as a hinge. Attention needs to be paid to the slits, whose width must be suitable for the thickness of the paper used.

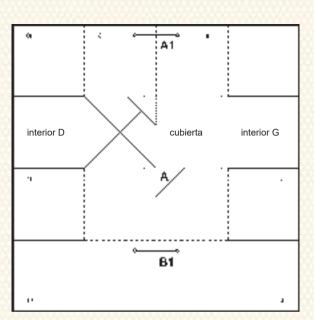


· Double concertina center pages fit together, model by J.-Ch.Trebbi, creation of J.-C. Planchenault.

The bearing strip that serves as a background has several rectangular cuts that extend up and down with vertical slits in the center of the rectangles, allowing for the overlay of the front strip.

■ 4 x 4 GRID FOLD AND V CUT

. Starting from a square base, the small central triangular cuts on a 4 x 4 grid guarantee blocking of the pages. Fold a 4 x 4 grid. Then mark the cut lines like in the drawing. Trick: to avoid tears, puncture the angles of the cuts with a very small hole puncher. Fold the sheet in two, folding the 13-4 part over the 10-7. Insert tab B into B1. Fold the upper strip downward. Insert tab A into A1. Join the sides and fold over the central axis. With a 20 x 20 cm (8 x 8 in) sheet of a paper, a 5 x 5 cm (2 x 2 in) mini book is obtained. (Creation of J.-Ch. Trebbi, 2019.)















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# ■ SQUARE BASE TRIANGULAR FOLD









 Triangular Maze Fold Book, 2016. Paperworks BC Digital White, 105 g/m2 (39 lb), simple double-sided laser print.

# Kelly Seojung Lee

Kelly lives and works in Seoul (South Korea). The artist created this model from a simple square base with a 3 x 3 grid from which she ingeniously eliminated the upper triangles to the right and the lower ones to the left. As a result, two origami bases are placed side by side yet slightly offset to allow for the creation of a maze book with a triangular base.

"The idea of the Triangular Maze Fold Book occurred to me while I was taking a course in Book Structures in college. The objective was to transform a known fold into something unique. I wanted to make a fold that was not necessarily like one in a traditional book but like a threedimensional structure. I thought that the double-side characteristic met the objective of containing the different elements on each side, and that a surprise factor would be added when the triangular fold was placed

flat and became a single piece. I put a cord at the end of the fold so that the book could hang from the wall, where it acquires a more sculptural appearance. I want to present this fold to children as a tangible and teachable object to provide them with an interactive experience. In addition, artists can use it to present their portfolios in an original format, as, for example, I did. It's been truly incredible to see the influence this tiny fold has had on the spread of my art."

Kelly Seojung Lee, December 2019.

slee58.myportfolio.com/triangular-maze-fold-book



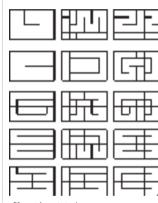
# ■ RECTANGULAR BASE SQUARE FOLD

• Dis Dix, Philippe Morlot, 2010. Book in sleeve: 62 x 62 x 15 mm (2 x 2 x 0.6 in): book flat: 180 x 420 mm (14 x 14 in). White Maya Clairefontaine paper, 270 g/m<sup>2</sup> (100 lb), vector drawing, monotone silkscreen brint, handmade, Artist book, numbered and signed, print run of 30 copies. "This books revolves around complements of ten. Each double page invites the reader to read or say "ten" The form is determined by the need of an exact number pages. In contrast to other object books, this one has a rectangular support subsequently cut and folded to give it a square shape. The direction of the texts depends on the willingness to handle the object as a book. Unfolded, this object book is not intended to be an autonomous plastic object." Philippe Morlot, January 2020.



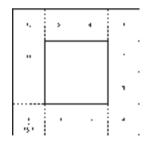






· Fifteen cut diagram proposals Creation of I.-Ch.Trebbi.

#### ■ HOLLOW SQUARE BASE



 Intersection, Ken Leslie. Format: folded, 7.5 x 7.5 x 1 cm; (8 x 44 x 0.2 in); unfolded, 5 x 29 cm (8 x 16 in). A rectangular bull whose special quality resides in the folded angles.





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# Papers and folds

# Origami papers and Japan papers

"In the choice of papers three criteria are at play thickness, texture and color. The classic origami paper is superfine. A wide range of colors appears on one side, while the other is white, making the diagrams of the books easier to follow. Some origami papers have texture. Others are iridescent to play with light or have patterns and are more suitable for making boxes and characters. Sometimes it is good to use a two-tone superfine origami paper, with a different color on each side, and even at times in a degraded color.

Kraft paper for instance, is highly resistant

and is ideal for everyday folds.

Washi is a fine, flexible yet solid paper that has been produced in Japan for 1300 years and is often used in origami. Washi is the generic term used to refer to paper manufactured in Japan. The term is made up of wo ("lapanese") and shi ("baper").

Tant paper is the king of origami papers: fine and easy to fold. It is one of the most multifaceted origami papers. It is suitable for both simple and complex models, as well as modular, tessellated and folded models of all kinds of animals and characters. It is ageresistant and neither fades nor deteriorates. The normal sizes have a square format:  $15 \times 15 \text{ cm}$  (6 × 6 in) or 20 × 20 cm (8 × 8 in). For mini folds there are 7.5 × 7.5 cm (3 × 3 in), and 35 × 35 cm (14 × 14 in) in elephant paper."

Nicolas Terry, Ianuary 2020.

www.origami-shop.com

www.happyfolding.com/paper-review\_tant



# Weight, pH and direction of the paper

The weight defines the mass of the paper per surface unit. The lower it is (between 80 and 170 g/m²) (30 and 63 lb), the softer the paper, while a high weight (between 350 y  $400 \, g/m^2$ ) (129 and 148 lb) corresponds to a rigid paper.

The pH ("potential of hydrogen") is the unit of measure of the degree of acidity from 0 to 14.A neutral or base (non-acid) paper is paper with a pH between 6 and 7. Its acidity is ideal and guarantees good preservation over time; but it could still contain impurities that would make it more fragile. A pH of 1 corresponds to higher acidity.

Paper pulp is made up of fibers. Depending on the manufacturing method, the directions of handmade papers or paper produced in a mold are not differentiated. But industrial paper has two directions: the machine direction (longitudinal) and the cross section, and the sheet of paper must be used in one direction or the other according to the needs.

In folding and binding jobs, the sheet is more easily folded longitudinally. In contrast, in the preparation of pop-up cards, the central fold, in which the opening and the closing of the sheet are made, must be perpendicular to the direction of the fibers. It is necessary to mark the folds beforehand with a stiletto, to compress the fibers topically.

Yet if couché paper is used, which is covered with several layers of pigments and binding agents that harden its surface, directions will not present a problem. To determine the direction of the paper, two strips of the same size are cut in the two directions of the paper. The one that folds more when it is taken by the ends is the one that has been cut crosswise.



Mini book made from recovered papers.

Creation of D. Couchaux.

www.lateliercanson.com/choisir-son-materiel-deconservation

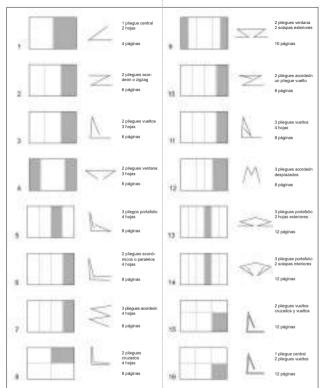
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# Booklet folds

To ensure the folds are made correctly, it is a good idea to keep in mind the dimensions of the sheets once they are folded with a tolerance backlash. As a result, some parts will be slightly shorter. For example, for an accordion fold from three sheets of paper, the sheets will have the same dimensions since they overlap, while in a fold consisting of two encircling folds with three parts on a A4 sheet  $(210\times297~\text{mm})~(8.2\times11.6~\text{in})$  base, the first two parts will be 100 mm (38~in)~long and the last will be narrower (97~mm)~(3.3~in).

www.imprimini.fr/wp-content/uploads/2017/02/ Guide-PAO-technique-IMPRIMINI.pdf



 Beginning of the folding of sheets of paper and types of folds.

Central fold: the sheet is folded simply in 2.

Accordion fold or Z-fold: fold resulting from several parallel folds following the shape of an

accordion or a zig-zag pattern.

Encircling fold: parallel folds that enable overlapping the different parts obtained in this way and closing the document on itself; up to five parts can be folded like a spiral.

Window fold: parallel fold consisting of two folds; the two parts are folded toward the center of the sheet of paper.

Wallet fold: fold made up of three folds that enables folding two exterior sheets toward the interior central fold

Economic fold: the sheet of paper is folded in two and then folded onto itself in a fold parallel to the previous ones. This allows for an eightpage fold-away object without cuts or staples. Cross fold: fold resulting from several folds berbendicular to each other.

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