

Paper Folding in 15th Century Europe

Donna Serena da Riva

The inspiration for this project came from a marginal in *The Hours of Catherine of Cleves*. A Flemish manuscript dating from approximately 1440, *The Hours of Catherine of Cleves* is a masterwork of illumination and miniature painting. (Plummer 16) One of the distinctive aspects of the manuscript is the artist's decision to include a vast array of interesting and unique illustrations in the margins of many of the miniature pages. To engage his patroness he explored many items and activities not commonly represented in fine art. From fishing to baking, rosaries to communion wafer, the manuscript is a treasure trove of fascinating depictions. The specific depiction being examined today is included on the page dedicated to Saint Agatha, the patron Saint of forging, casting and weaving. Depicted at the bottom of the page are several pieces of jewelry wrapped prettily in gift boxes. And it is these boxes that cried out to be reproduced.

On Paper Folding

The early evidence for European paper folding is scanty at best. After much research I made contact with a gentleman associated with the British Origami Society named David Lister. He has been recognized as one of the foremost sources of information regarding the history and culture of paper-folding and is currently working on a book on the subject. All of the references to early European paper folding that I was able to locate cited a woodcut in a Venetian text by Johannes de Sacrobosco called the *Tractatus de Sphaera Mundi* dating from 1490.

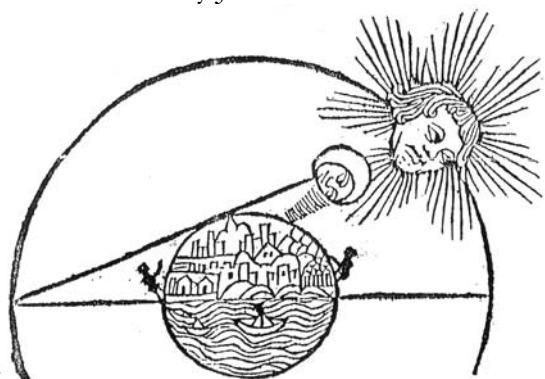


Figure A



Figure A (detail)

By all appearances this demonstrates the childhood mainstay of a simple folded paper boat can be dated as far back as the late 15th century. But as the earliest known example of paper folding it is 50 years younger than the *Catherine of Cleves* manuscript. In my correspondence Mr. Lister had the following to say in reference to the *Catherine of Cleves* image:

The box from the Book of Hours is unusually clear, showing both the method of construction and the completed box. This is a design that often occurs in modern books of recreations dating from the 19th Century, such as, for instance, "Cassell's Book of Indoor Amusements" which was published in 1881. It still occurs from time-to-time in modern books of recreations or crafts. However, because the paper is cut, it doesn't find much favour with modern paperfolders. Mush[sic] the same effect can, in fact be obtained by methods which avoid cutting the paper.

Nevertheless, this example from 1440 is an enormously important find and I am most grateful for it. May I have permission to make it available in the Origami World?

Considering this response, it seems that the world of Origami and the world of manuscript Illumination had not crossed paths in the past. Confident that this illumination depicted a form of paper folding I ordered the recommended book *Cassell's Book of Indoor Amusements* through my local library.

The Folding

The following is a paraphrased transcription of the instructions from *Cassell's* with additional instructions from this author

First Cut a piece of paper into a square. Then fold A to C and B to D to create guiding folds shaped in an 'X'.

Figure 1: Fold A, B, C and D to E in succession. Unfold to flat.

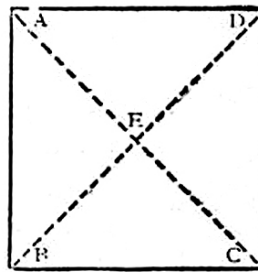


Fig. 1.

Figure 2: Fold and unfold alternately A to H, B to F, C to I, and D to G.

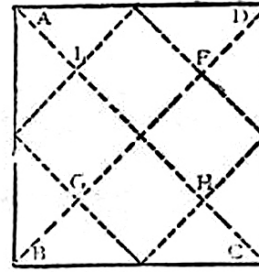


Fig. 2.

Figure 3: Fold and unfold alternately A to N, B to M, C to L, and D to K.

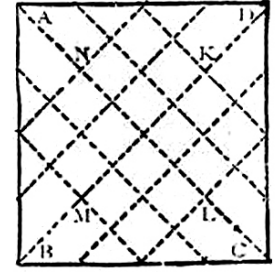


Fig. 3.

Figure 4: Cut away triangular areas colored black. Cut lines are indicated by solid (as opposed to dotted) lines, these are necessary to create the sides of the box that will fold into the structure – they must be on opposing sides.

On Points A & D you will cut the slits to create the tabs to be folded to go through the Slits. Measure the width across the fold and divide by three. Cut the slits from the edge of the paper in approximately one third – leaving one third of the paper intact in the center. Fold the points in, overlapping, to create your tabs.

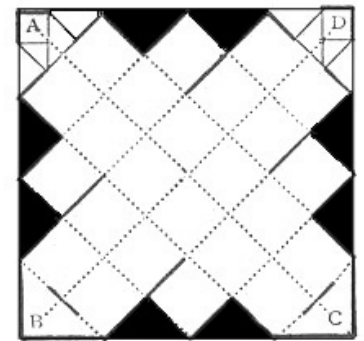


Fig. 4

On points B & C you will cut slits for the tabs to go through. These need to be slightly wider than the tabs themselves, one third of the width plus extra on both ends will be fine.

Final Assembly

To create the box, keep the triangular flaps on points A and D folded in. Next fold in the flaps on arms A and C so that they are tucked in. Bring arms A and C together, passing tab A through slot C. Once the tab is through, gently fold A back so that you can unfold the triangular flaps to secure the join.

Bring arms B and D together over top of the joined A & C arms and pass tab D through slot B. Join together as above. Ta Dah! A box.



Finishing

If you desire to decorate as shown on the finished box in the illumination I suggest you use traditional illumination techniques. Work with the paint considerably thinner than typically used in manuscript illumination and there will not be as great a chance of cracking in the paint. It also helps to add a bit more Gum Arabic to the binder to help with the same issue. I have found it easiest to completely cut and fold the box up to the point just before final assembly and then paint it flat. Allow the paint to dry at least overnight and then fold the box at a later date.

Bibliography

Cassell & Company Ltd. *Cassell's Book of In-Door Amusements, Card Games and Fireside Fun 1881*. Hazell Watson & Viney Ltd., London. 1973.

Plummer, John. *The Hours of Catherine of Cleves*. George Braziller, New York. 1966.