working with paper: understanding grain

A paper’s grain is the direction in which most of the fibers lie and is determined during the paper-making process. Paper is either grain short (grain is parallel to paper’s short side) or grain long (grain is parallel to the paper’s long side).

You can feel the direction of the grain by gently bending your paper horizontally and vertically. The grain runs in the direction in which the paper is easiest to bend. You will want to make your folds along the grain so that the grain runs parallel to the spine of your book.

materials: printed images from archives and magazines; archival glue stick; archival double stick tape; ruler; x-acto knife; colored card stock for the binding (19x25” sheets are commonly available); 4x4”, 2x2”, and 1x2” jigs (made of board and used for cutting and placing images)

optional: bone folder or popsicle stick for pressing your creases; decorative paper scraps

suppliers: bookmakerscatalog.com; dickblick.com; jerrysartarama.com

assembly of accordion-fold books

1. Determine the grain direction for your paper. For 19x25” paper, cut and fold as directed in diagram a. You will end up with 6 strips that are 4x19”. These can be tabbed together to form a long accordion-fold book.

2. Use your 4x4” jig or a ruler to measure 4” increments along your 4x19” strips. Score by lightly pressing a line with the dull side of your x-acto knife at the 4” mark as seen in diagram b, then fold.

* cut along solid lines; fold along dotted lines

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3. Connect your strips by placing double-stick tape on the extra 3” section, as shown. (You can trim the tab if desired.)

4. Once you have your book connected to your desired length, you can begin arranging and adhering your 4x4” images. Outline the back side of your images with double-stick tape, then fill in with a glue stick. Be very careful when laying your images on the pages.

5. When you have all of your 4x4” images glued in, you can begin creating your pop-ups. Cut out 2x2” and/or 2x4” images for the pop-ups and decide where they will go.

6. Apply tape and glue to the back of the first pop-up image as directed in step 4.

7. Place a 1x2” jig on the bottom center fold between your first two images, as in the diagram at right. Align the bottom of your pop-up image with the top edge of the jig. Press firmly down to adhere the pop-up to the page.

8. Using a ruler, cut along the top and bottom edges of your pop-up images. Do not cut along the sides! Gently pull out your pop-ups and crease along the center. (Notes: You may need to lightly score the sides of your 2” images to help them pop-out. If you are using a single 2x4” image rather than two 2x2” images for the pop-up, cut it in half first before gluing down. Otherwise, the single 2x4” image may crack in the center when you pop it out.)

9. Repeat for each section.

10. ENJOY AND SHARE YOUR BOOKS!