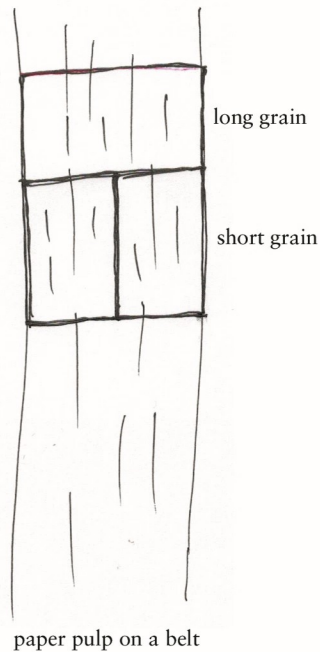


Paper Grain

Explanation of the grain direction of paper

When paper is produced industrially, it always has a so-called grain direction (short grain or long grain). Because the paper pulp is transported on belts, the fibers have a tendency to align themselves in one direction, parallel to the long side, much like logs floating down a river. The papers can be cut out of the long paper roll in different directions, and in doing so the two types of grain direction are created.



Long Grain

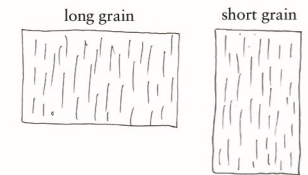
The fibers are positioned parallel to the short side, that is, from the broad side to the wide side.

Short Grain

The fibers are positioned parallel to the long side and are aligned from the short to the short side.

Handmade paper has no direction of the fibers. By shaking the screen by hand, the fibers are deposited crisscross in the paper.

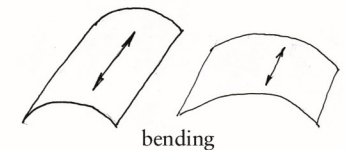
With a book, the grain direction of the paper, the boards of the book covers and book pages should always be parallel to the spine, so that the pages turn well and no uneven tension arises during gluing, and so that the fibers do not break when folding.



Testing and recognizing the grain direction

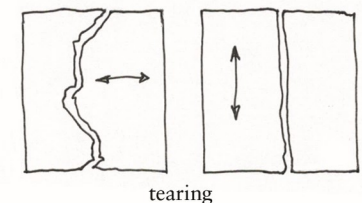
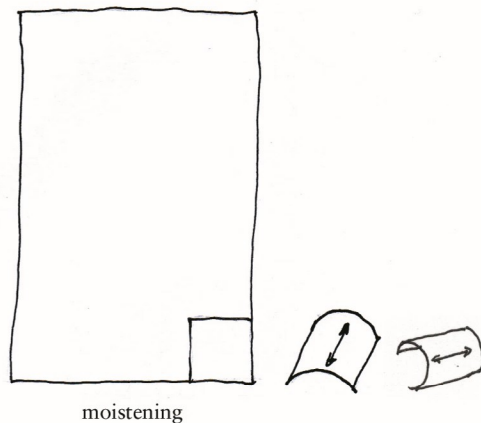
Bending

By bending the paper you can feel in which direction the fibers are going. If it bends more easily, the fibers lie parallel to the fold.



Moistening

If you cut a square from the paper and moisten one side, the paper will curl in one direction. The grain direction then goes parallel to the straight sides.



Tearing

If you tear the paper, you can see that it is easier and straighter to tear with the grain direction because then the fibers lie parallel to the tear and do not have to be torn.