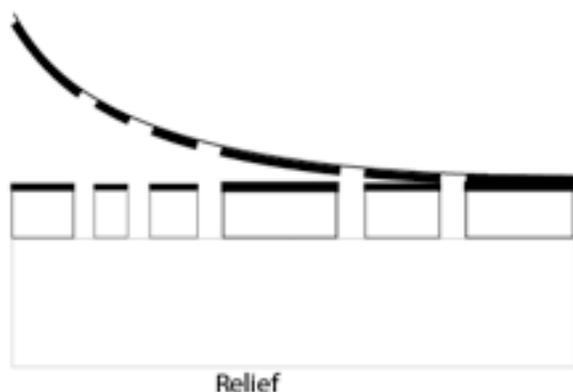
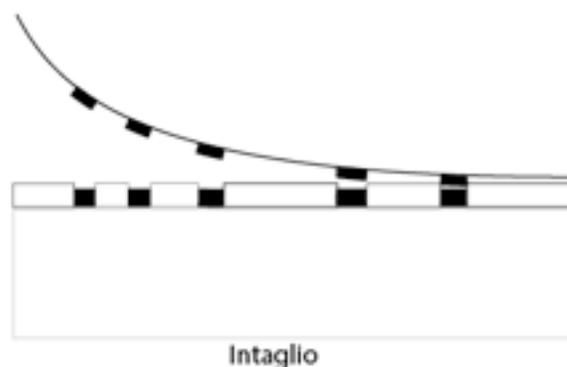


RELIEF Printing

A **relief print** is an image created by cutting away the (negative) areas you don't want to print. The (positive) areas that are to be the image are rolled up with ink (typically) a black *on the original surface*; the parts of the matrix that are to be blank (white or color of paper) having been cut away, or otherwise removed.



Printing the image is therefore a relatively simple matter of inking the face of the matrix and bringing it in firm contact with the paper; a printing-press may not be needed as the back of the paper can be rubbed or pressed by hand with a simple tool.



This is the direct opposite to an *intaglio print*, such as dry point, engraving or etching where the incised areas to print black are *below* the original surface of the matrix, and the original surface of the matrix will print blank. To print an Intaglio the whole matrix is inked, and the ink then wiped away from the surface, so that it remains only in the lines (classically) that the artist has made below the surface of the matrix. Much greater pressure is then needed to force the paper into the channels containing the ink, and a high-pressure press will normally be required.

Woodcut printing on paper was first adopted in the seventh century China, where drawing and text were reproduced on the same block. A hundred years after paper reached Europe, the use of woodcut in the development of printing was established in the late fourteenth century Germany. Albrecht Durer explored the technique of the medium of woodcut, elevating it as an independent form of art, not only a way of printing text. Hundreds years later in 1905 a handful of German painters formed themselves into a revolutionary group, The Bridge. One of the group's most successful ventures was the revitalization of woodcut. They produced a great deal of woodcut of originality, from which modern relief printing

began.

Relief techniques include woodcut, wood engraving, relief etching, linocut, and some types of collography. Traditional text printing with hand set type was/is also a relief technique, which meant that woodcuts were much easier to use as book illustrations, as they could be printed together with the text, while intaglio prints such as engravings had to be printed separately.

The other traditional families of techniques are: impressed onto paper or fabric. The actual printing can be done by hand or with a press.

Wood block

Wood suitable for relief printing can come from a number of trees, including pear, jujube, cherry (favored by the Japanese), apple, plum, beech, chestnut and maple. These trees are hard enough to enable fine details to be cut. Soft wood such as poplar or lime may also be called into service if large areas need to be cut away. Smooth the block surface with sandpaper before use.

Plywood has a very different feel to any plankwood used for woodcut. It does not stand for fine details, but is very responsive to the cutting tools, which can be used as sketching instruments. There are several kinds of plywood.

Choose, if possible, linden wood that is less splintery.

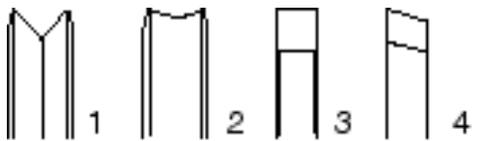
Apart from wood, many other materials can be used as the block or plate. Linoleum has a similar effect to those of woodcut, but with a thick, sluggish feel. A smooth bed of plaster can be incised. Plastic sheet has a smooth surface,

producing an uniform tone. Cardboard can be cut into various shapes, glued to a panel, and then relief printed. Poly tiles are easy to incise and take ink well. Potato prints are popular. Even stone and metal can be incised.

Cutting tools

There are two main tools in woodcut to scoop out sections of wood, the curved gouge and the v-tool. The gouge makes broad cuts which are recognizable on a print for the round beginning of each stroke as the tool enters the wood. The v-tool hakes narrow cut which are recognizable for the sharp beginning of each stroke. On

plankwood these tools can be used along and across wood grain; on plywood they produce smooth cuts following the grains. Other frequently used tools are the flat chisel and the knife. Chisels are used to remove large areas; knives are used to cut along the shape of the image for a delicate result



1. v-tool 2. gouge 3. chisel 4. knife cutter

- Ink
- Rice paper
- Burnisher or baren

Baren has been the Eastern printmaker's press.

Construction



A coiled braided cord forms the core of the baren

Finishing the wrapping by pressing the baren down firmly with the left hand to tighten the wrapping

and twisting the sheath with the right hand to form a handle.

The baren is made of layers. A flat coil of **braided** cord forms the core. This is placed on a disk (*ategawa*) consisting of 30–40 sheets of high-grade long-fibred hosokawa paper, wrapped in tissue and black **lacquer**. This is covered by a thin bamboo sheath (*takenokawa*) twisted in such a manner as to form the handle on the top.^[1] According to Hiroshi Yoshida's manual *Japanese Woodblock Printing* (1939) the *madake* species of bamboo, grown in Kyushu, southwest Japan, is the best one to use.^[2]

Alternatives

Large wooden spoons are also used as burnishing tools in printmaking, glass jars with a smooth circular base can also be used for some applications. Some new world barens are similar in shape to the traditional one with small metal ball bearings embedded in the bottom surface that generate the high point contact pressures (supplied by the braided cord) and have the low friction (offered by the bamboo leaf covering) of a traditional brayer. Another interesting baren is one developed by Professor Seishi Ozakus and made from a bundle of bamboo toothpicks.^[3]

The disk inside the baren takes 40–50 days to create, as the craftsman glues one sheet of paper on the disk each day. The disk must then dry for a year's time before the baren is assembled. The coil and covering of the baren are woven and formed from parts of the bamboo plant, requiring the skill of a true master. Only one known person in Japan is still making traditional (*hon*) baren for a living, Hidehiko Goto of the Kikuhide workshop.

Nik Semenoff has developed a palm press that serves as a baren replacement, made with a number of roller bearings alternating on two close spaced shafts in a small hand held mounting. The bearings have negligible friction and the pressures achievable are suitable for some **offset lithography** printing, though wider spacing of fewer contact points may make it less suited for traditional wood cut printing.