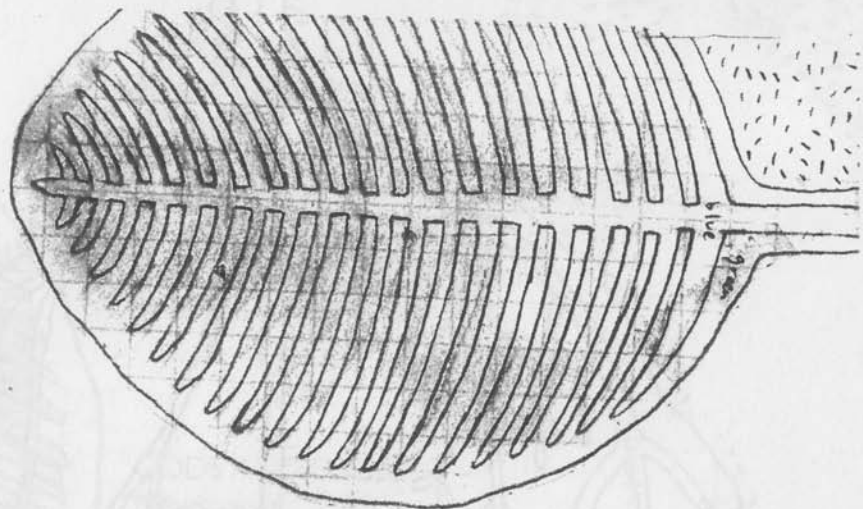
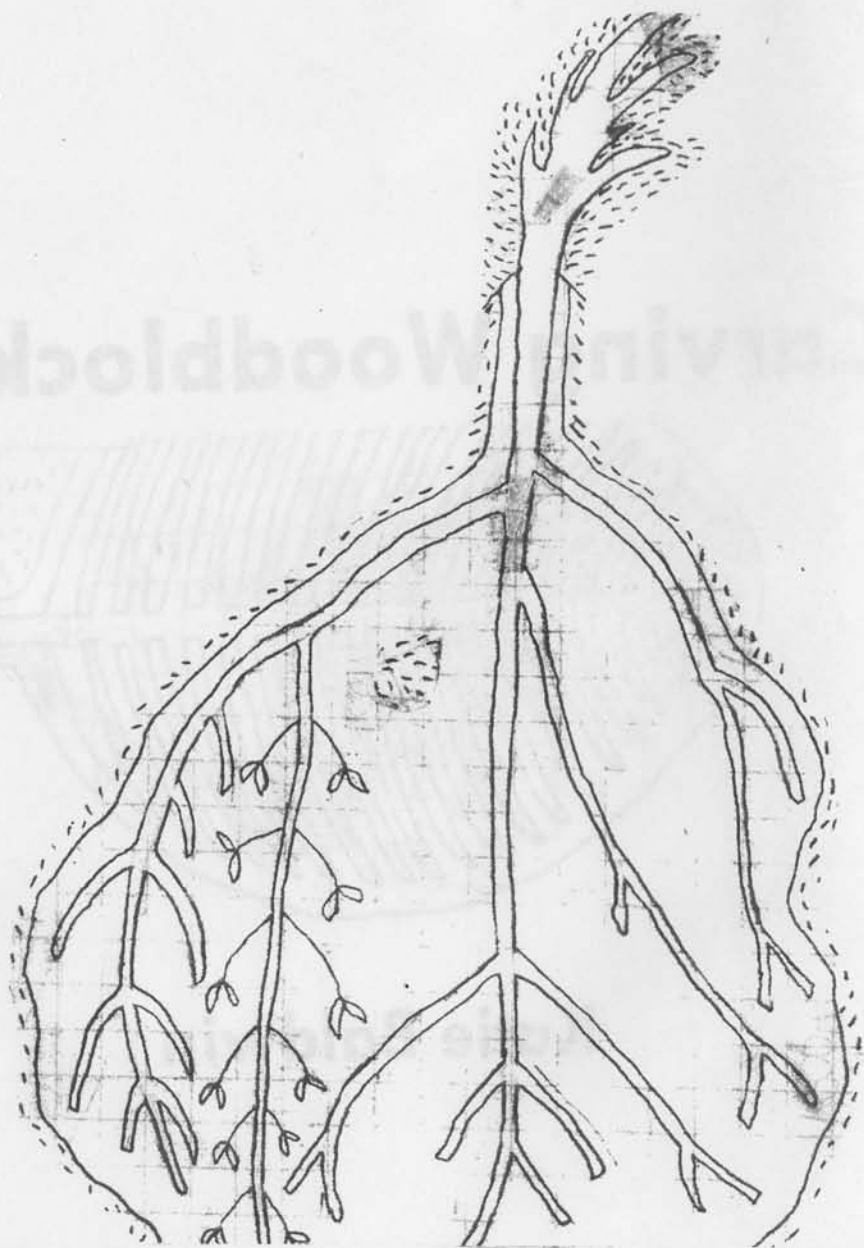


Carving Woodblocks



Katie Baldwin



TOOLS:

Kento knife
Carving tools
Baren
Ink brushes
Water brush
Small brushes (hucklebee)
Sharpening stone

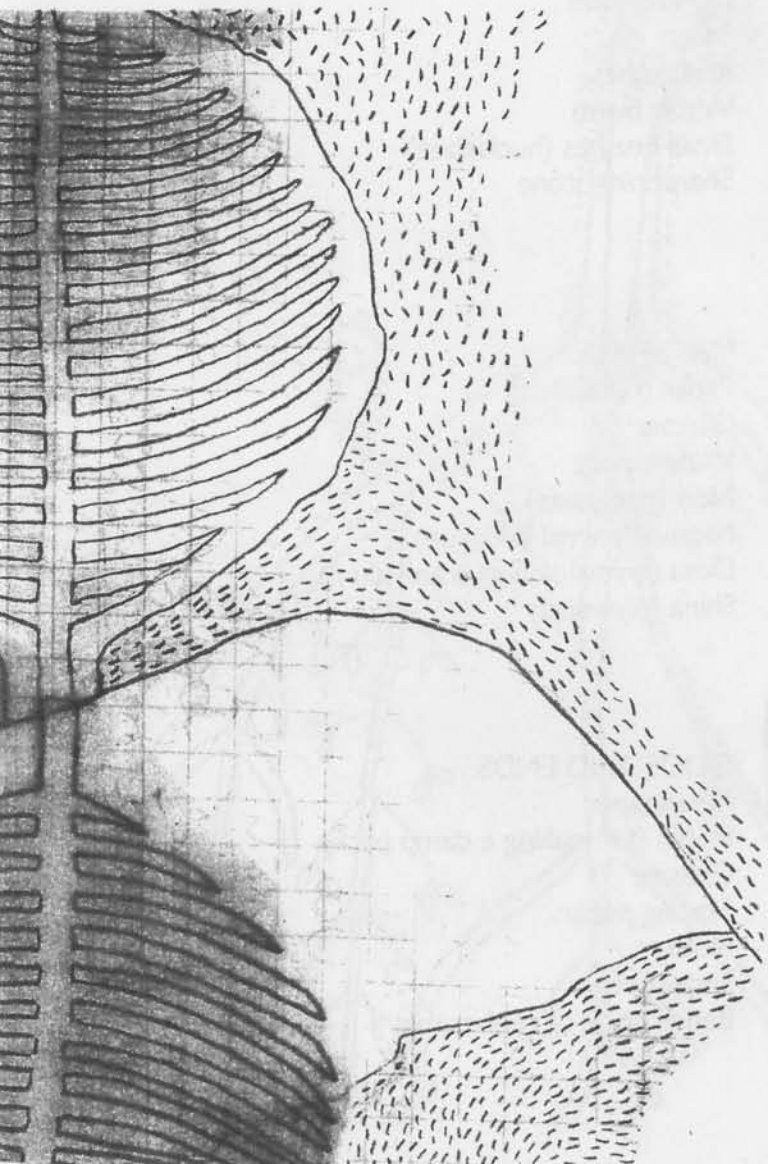
MATERIALS:

Paper (koko fiber)
Gauche
Watercolors
Nori (rice paste)
Nicawa (animal skin glue)
Dosa (animal skin glue and alum)
Shina (plywood)

ODDS AND ENDS:

Newspaper
Plastic (for making a damp pack)
Glassine
Tracing paper
Blotters
Spray bottles
Bench hook or rubber mat

Part I: CARVING

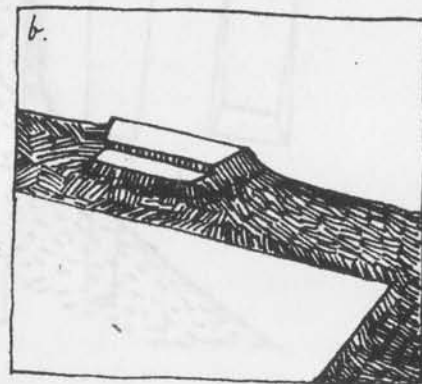
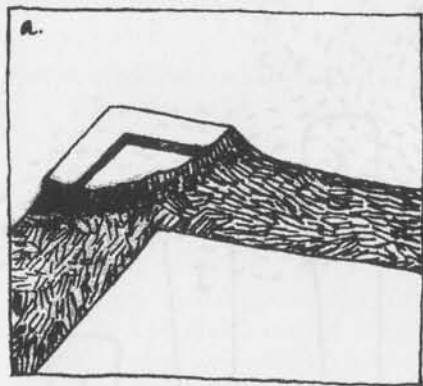


THE CARVING SEQUENCE: There really is a specific order and way that images are carved from woodblocks. Following this sequence will give you better control in carving the image that you want to print. It gives you accurate Registration and it gives you cleaner and more consistent edition printing.

I. KENTO FIRST: When I say kento first, I mean kento first.

Kento marks are the registration notches made with a kento nomi in the woodblock. Kento marks need to be carved into each block, for each and every color.

Always carve kento marks in your block **BEFORE** transferring your image. If you don't, your registration will be off—if you do, your registration will be tight, really tight.

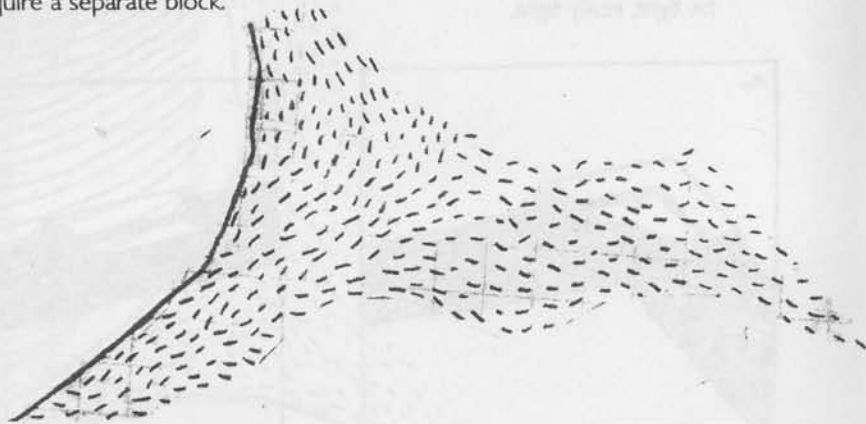


Kento marks are guides (a) *kagi* and (b) *hikitsuke* carved into the block. The guides keep a consistent margin from the image area to the edge of the paper, in order for the blocks of color to coincide with each other properly. Accurate registration is dependent on precise transferring and carving of the kento.

To carve the kento, use the kento-nomi, a chisel with a wide and straight edge. Hold it by the handle, with the edge of blade flat against the wood, exactly on the line to be cut, keeping the tool at a 90° from the board. Press down to make a 2 mm deep cut. After these preliminary cuts are made for the *kagi* and *hikitsuke*, use a small u-shaped gouge to clear along the ends of each cut to prevent splintering. Again, take the kento-nomi, hold it at a 25° from the board and clear a shallow and smooth surface, carving toward the preliminary cut. This will allow for a place for the paper to sit.

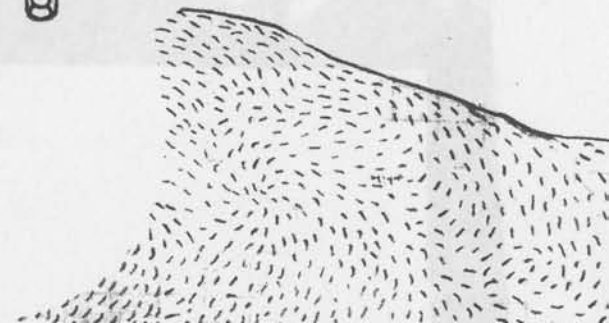
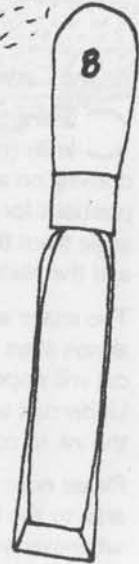
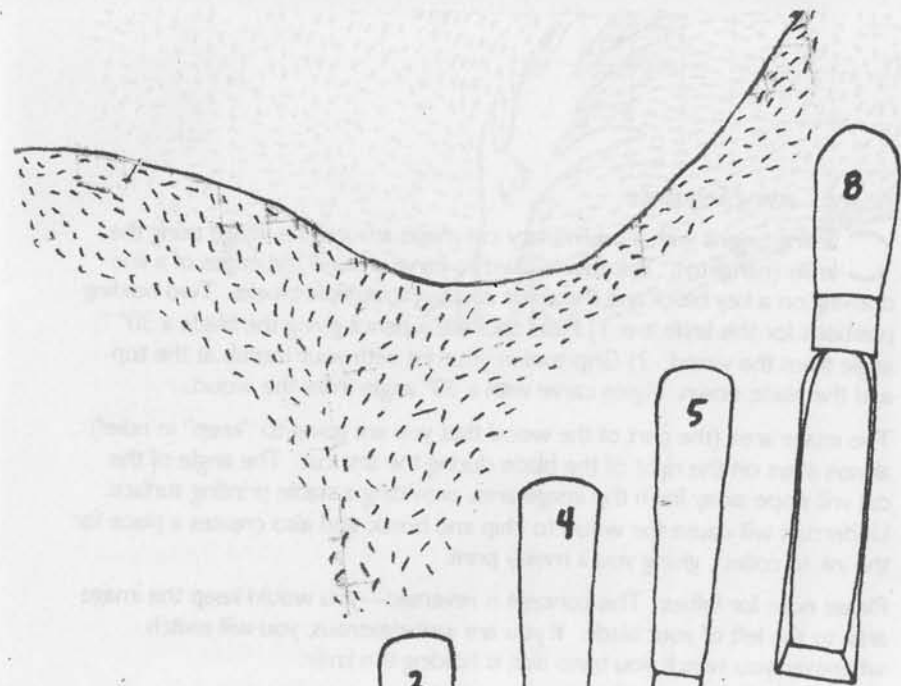
2. Transfer your drawing to the block

Transfer your image to translucent paper (vellum or tracing paper). Place the translucent paper in the kento marks *wrong reading* and tape in place. Slide the transfer paper between your drawing and the block. Transfer all areas of your drawing that correspond with the particular color of ink you will be using on the block. For example: if you will be printing the block in blue, transfer all areas of your drawing that will be blue in the final print. You will repeat this process for each color you wish to print: essentially each color will require a separate block.



Tools

1. To (KNIFE)
2. Aisuki (SMALL BULLNOSE CHISEL)
3. Aisuki (MEDIUM BULL NOSE CHISEL)
4. Soainomi (LARGE BULL NOSE CHISEL—used with a wooden mallet)
5. Marunomi (LARGE U-SHAPED GOUGE—used with a wooden mallet)
6. Komasuki (U-SHAPED GOUGE)
7. Sankakuto (V-GOUGE: remember—it's for babies!)
8. Kentonomi (KENTO KNIFE)

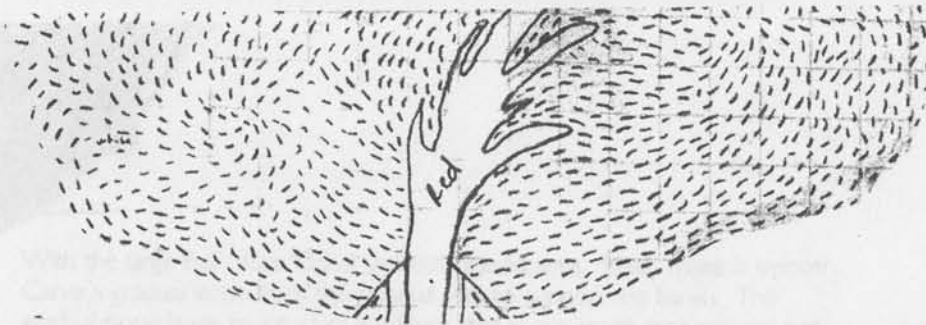
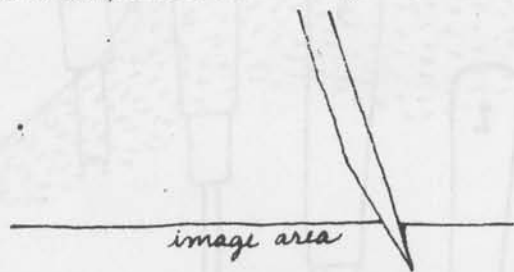


3. The Carving Sequence

Carving begins with a preliminary cut made around the image using the knife (hangi-to). This tool is used to carve around the edges of a line drawing on a key block and the color areas in a multiple blocks. Two holding positions for this knife are: 1) Hold tool like a pencil giving the blade a 30° angle from the wood. 2) Grip tool in your fist with your thumb at the top and the blade down. Again carve with a 30° angle from the wood.

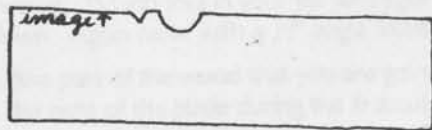
The image area (the part of the wood that you are going to "keep" in relief) always stays on the right of the blade during the first cut. The angle of this cut will slope away from the image area, providing a stable printing surface. Undercuts will cause the wood to chip and break, and also creates a place for the ink to collect, giving you a messy print.

Please note for lefties: This concept is reversed—you would keep the image area to the left of your blade. If you are ambidextrous, you will switch whenever you switch you hand that is holding the knife.

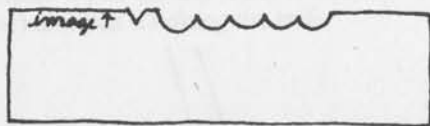


Your second cut will be a "back cut", which will be made by carving in the opposite direction from your "preliminary cut". To make this cut you will switch your image to the left side of the blade, completing a second cut with 2mm of distance from the preliminary cut. This will make a "v" groove around your image.

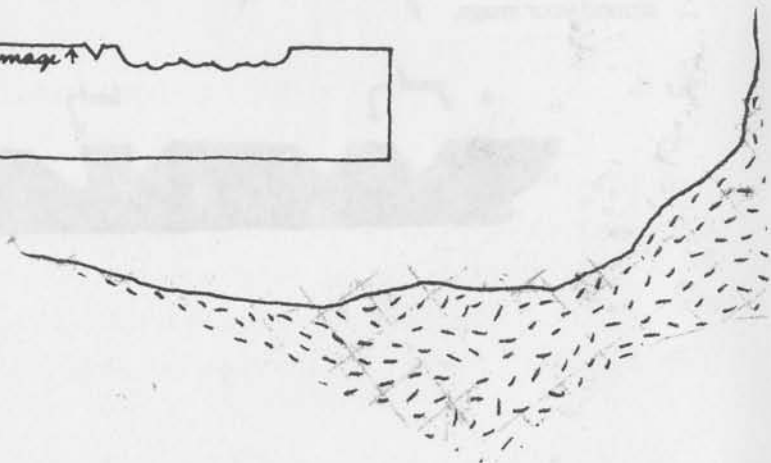
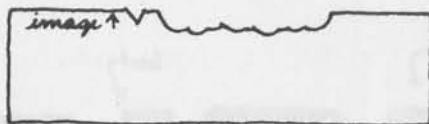




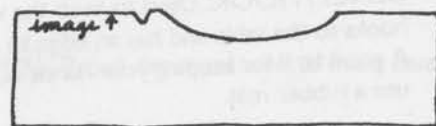
With the medium U Gouge carve a channel around all color and line areas—like a moat around a castle (the castle being your image area).



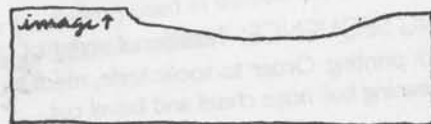
Clear out wood with a large U Gouge around the "moat". The wood should be cleared about 2-3 finger widths around your image area. Cut off the peaks in the cleared area, in order to smooth and deepen the cleared area. It should be fairly deep—about 5-8mm.



With the large Bull Nose Chisel smooth cleared area. Really make it smooth. Carve a gradual slope from the cleared area to support the barren. This gradual slope leads to a part of the block that is not image area and will not be inked. It is left to keep the barren flat against the wood during printing. The slope must be gradual and smooth in order to avoid unwanted embossing.



Use the medium Bull Nose Chisel to bevel the wood at an approximate 45° angle. This angle leads from the surface of the image area to the surrounding cleared out area of the block.



VOCABULARY FOR JAPANESE WOODBLOCK PRINTING AND
OTHER USEFUL LINGO FOR TALKING ABOUT WOODBLOCK PRINTING.

BAREN: Traditional tool used to print by hand. The inside is made up of a disk covered with a coiled core (fancy: bamboo strands twisted together; contemporary: cord) and wrapped with a bamboo leaf that is twisted and folded together to make a handle across the top. This seemingly simple tool gets very complicated and specific – much more so than I am describing here.

BENCH HOOK: Used to keep the woodblock stable as you carve. It hooks to the table and has an edge to brace your woodblock against as well. A good tool for keeping your hands out of the way of cutting. You can also use a rubber mat.

BOKASHI: A technique of printing a gradation of color.

BULL NOSE CHISEL (AISUKI): Comes in various sizes. Primarily used for cleaning up areas that were cleared by U gouges at the end of the cutting sequence. A larger chisel called a soai nomi is used with a mallet to clear large blocks. A medium sized aisuki is used to cut the bevel around the relief color and line area.

CARRYING BRUSH (TOKIBO): Used to move the pigment to the block. In Japan this was always called a hucklebee brush. water brush (mizu bake) This is a wide brush for dampening paper. A dosa bake looks the same and is used to size paper.

CHIEF CARVER: Kashirabon is the chief carver in the making of traditional woodblocks. It would be their responsibility to carve the head and hands in the block.

CUTTING SEQUENCE: Traditional order of carving for Japanese woodblock printing. Order to tools: knife, medium U gouge, clearing Larger U gouges, cleaning bull nose chisel and bevel cut.

DAMP PACK: A way of preparing paper for printing so it holds the correct amount of moisture. (Paper is misted or brushed with water and layered with newspaper and enclosed in plastic.)

EDITION: Consistent multiple of the same printed image.

EMBOSS (KARA ZURI OR KIMEDASHI): Creating an impression in the paper from the woodblock. A blind embossing doesn't use any color.

GOMA ZURI: The use of more water than nori in the printing. Gives a speckled look ("sesame seed") to color areas.

KENTO: Registration notches made by hand in the woodblock with a kento nomi (specific cutting tool).

KENTO KNIFE (KENTONOMI): Broad, flat chisel used to make kento registration marks.

KEY BLOCK (SUMBIBAN) This is the first block to be carved, generally printed in black. Color and design of the multiple blocks are based off of the key block.

KIRAZURI: Mica printing that produces a silver tone.

KNIFE (HANGI-TO): Cutting knife used to make the preliminary cuts around the edges of a line drawing on a key block and color areas in multiple blocks in the traditional cutting sequence.

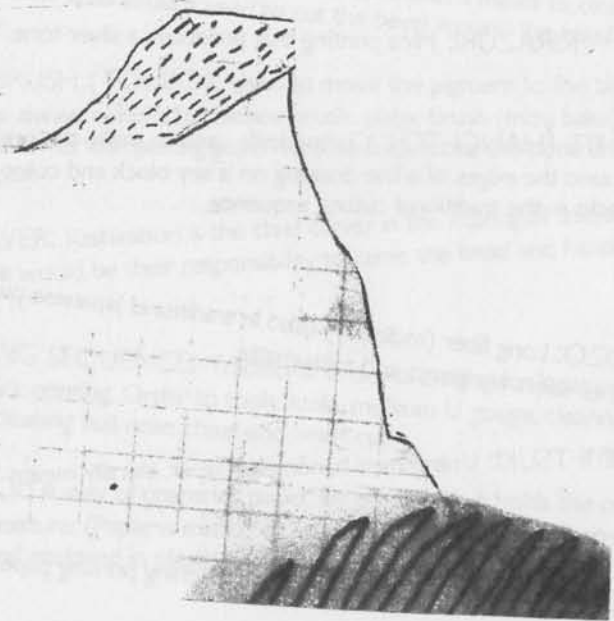
KOZO: Long fiber (mulberry) used in traditional Japanese paper (washi). Other fibers are gampi and mitsumatta.

MIMI-TSUKI: Untrimmed handmade paper, literally means "with ears".

MIZUBAKE: Brush used for moistening printing paper.

MOKU HANGA: Traditional Japanese style of printmaking (waterbased).
Hanga is a picture made using blocks.

MOKU HANGA HARD CORE: Term coined in Nagasawa by artists for artists that are serious about this traditional technique – I mean really, really serious.



MOKU HANGA NOMI: Woodblock printing chisels designed to be used by hand.

MULTIPLE BLOCK: More than one block is carved to create a printed image. Traditionally a key block (black outline of the image) is carved and printed and several other blocks are carved in relationship to the key block to fill the color areas of the printed image. An edition can be re-printed because the blocks remain unchanged upon completion of the edition (unlike a reduction block).

NIKAWA: Animal skin glue – used in the mixture for sizing paper. Also, a few drops of nikawa diluted in water are added to sumi or ink for goodness before printing.

NORI: Rice paste. Mixed with water and added to ink to give body so the ink will spread evenly over the block.

REDUCTION BLOCK: An image is transferred to only one block; some wood is carved and then printed. More wood is carved from the same block and again printed – layering the second color on top of the first color and revealing the first color where the block was carved away. This is repeated on the same block to layer and reveal ink as the printer decides. In the end, the woodblock is almost entirely carved away and the edition can not be reprinted. This sounds more complicated than it really is.

REGISTRATION: Method for transferring separate colors of an image to a block so that they will line up with each other during the printing.

RUBBING BRUSH, HANGA BAKE, SURI KOMI: Long bamboo handled brush of hag hair or deer hair. Maru bake: round cornered wooden backed horse tail hair brush. These brushes are used to spread the ink (and nori) around and into the surface of the block for printing.

PIGMENT: Ink; generally gouache or watercolor (you can use dried pigment).

POWDERED MICA (KONAUNMO): Sprinkled over freshly printed area to add a subtle shimmer to print.

PUBLISHER: Oversees the division of labor and collaboration in Japanese tradition of printmaking: artist, carver and printer.

SHARKSKIN: Dragon skin or sand paper. Used to shape, split, and soften the rubbing brushes.

SHIMA: This work means literally "islands". These are areas in the block that are left un-carved, however are not inked. They provide support to the baren during the printing process.

SIZING (DOSA): Combined with alum, water, and nikawa, and applied to paper with a large flat brush. This keeps ink from bleeding into the paper during printing and allows for better layering of ink and consistent printing of flats and editions.

SUMI: Japanese ink made from pine soot and glue.

U GOUGE (KOMASUKI): Medium U gouge is second in the cutting sequence to carve a channel around all color and line areas. Large U gouge is used for clearing out wood around relief line and color areas. A maru nomi is a large U gouge that has medal on the end of the handle and is to be used with a wooden mallet (kizuchi) to clear large areas on the block.

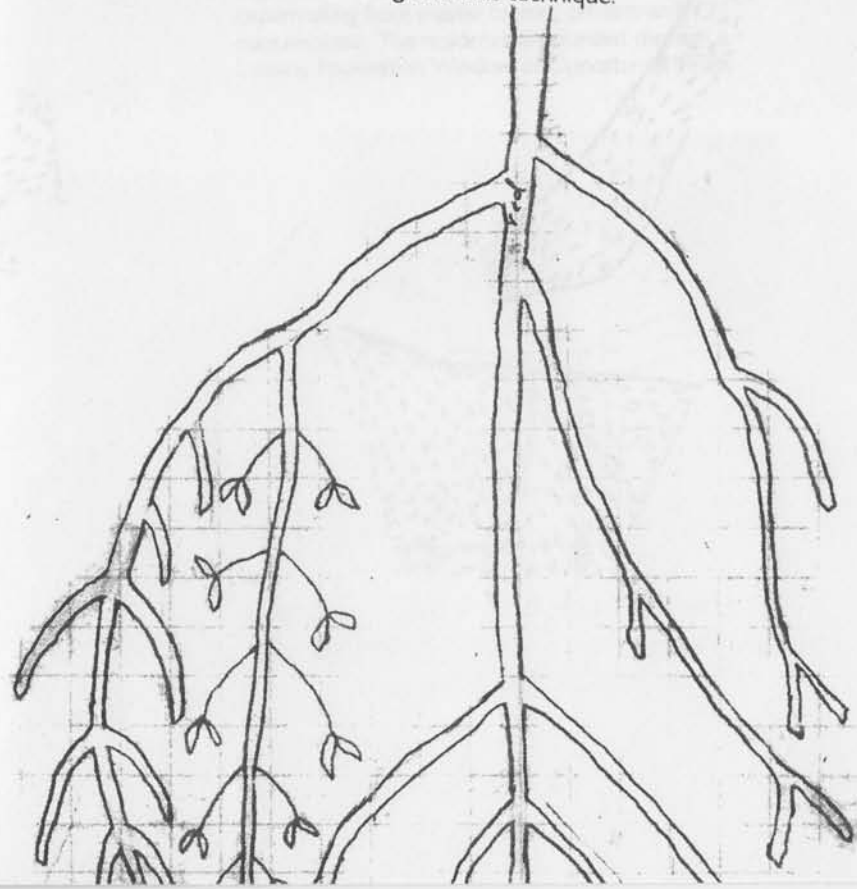
UKIYO-E: Refers to "pictures of the floating world"; prints by artists such as Utamaro, Sharaku, Hokusai, Hiroshige (and others) made during the Edo (Tokyo) period (1603-1867).

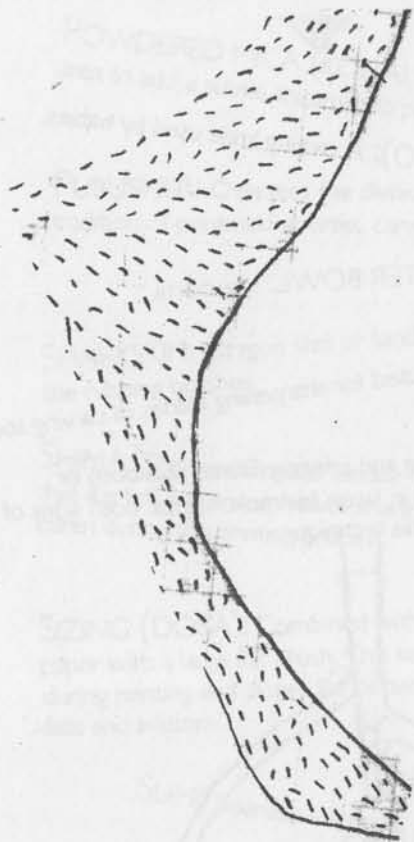
V-SHAPED CHISEL (SANKAKUTO): A carving knife used by babies.

WATER BOWL: Mizubachi.

WHETSTONES (TOISHI): Stone used for sharpening blades of carving tools.

WOODBLOCK: Matrix for carving and printing: Shina (plywood) or Cherry planks (traditional wood used in Japan for moku hanga. Both sides of matrix can be used for carving with this technique.





In 2004 I represented the Mid-Atlantic States at the Nasgasawa Art Park Pilot Project. I was selected through a juried process, organized by Rutgers' Center of Innovative Print and paper, to spend three months on Awaji Island in Japan. During this residency I learned traditional techniques of Japanese printmaking and papermaking from master carvers, printers and papermakers. The residency was funded through a Leeway Foundation Window of Opportunity Grant.

