Pyrography

by Kimberly Anne Glover, 2014

Materials: Maple, pear, cherry or any close grained wood is ideal for pyrography. If you use a large grained wood such as oak or ash, the grain may take the tip in a direction you *did not* intend for it to go. You can also do pyrography on leather.

Safety:

- NEVER do pyrography on any material that has had finish applied
- Use a solder-style fan to pull the fumes away from you to avoid smoke inhalation
- When not in use disable the unit. Good – remove the pen cord from the unit, Better – unplug the unit, Best – have the unit on a switched plug that can be turned off.
- Tips such as the skew and knife are sharp and will cut skin
- Ergonomics – change your work area to suit you. I work at a low bench sitting in an office task chair. My light/magnifier is movable so I can sit comfortably and not hunch over the work.

Tools:

- Pyrography set characteristics
    - Single or dual burners
    - Some units have a secondary adjustment for heat
    - Pens come in standard or heavy duty as well as fixed nib or interchangeable nib
- Leather strop (used for cleaning nibs that are skew, knife, chisel)
- Small brass brush (used for cleaning nibs that are complex shapes)
- Tracing paper, graphite, scotch tape or blue painters tape
- Store bought stencils, clip art books, free images from the internet
- Tracer, stylus (homemade or purchased) pro – reuse a pattern, con – hard to tell where you have already traced
- Pencil and a good size eraser (soft white-colored erasers leave residue in the grain that may show when you put the finish on)
- Small ruler (if you like straight lines)

- Coloring tools (pencils, crayons, markers, dye, etc.)
- A good light that can be directed at your work
- Magnifier (no matter what age you are, it helps to see the fine details)
- Work Support for you and the piece

Hints

Set up:

- Pyrography is *NOT* an outdoor sport - breezes and temperature change will affect the way the burner performs.

- Don't fight the cord! After you connect the cord to the pen, lightly hold the pen in your hand like you were going to work with it. If the nib is not oriented to the work as you intend, turn the cord – *NOT* the pen. This will reduce the amount of stress on your hold and allow you to make more fluid movements and not get hand cramps!

Patterns:

There are numerous ways to put a pattern onto a workpiece (tracing, naphtha transfer, iron transfer, draw directly on the workpiece).

- Tracing – using graphite paper, trace the pattern with as much or as little detail as you need or using graphite or chalk on the back of the original and trace.

- Naphtha transfer – you must have the pattern copied on a toner style copier for this to work. It can be a little messy if you use too much and will tend to raise the grain of the wood.

- Iron transfer – again you have to have a copy from a copier. If the piece is very thin, the heat may cause twisting. It is also not feasible on concave or convex pieces.

Short of drawing the design directly on the work, I prefer the tracing with graphite paper method. It is the cleanest and most versatile – although it does take a little time. Hints:

- Keep things small. Cut the tracing paper to a size that works for the design. Having a larger piece than necessary makes it harder to align the design and if it should slip, you may not notice. It also makes it more difficult to position the graphite.

- I also cut the graphite into smaller pieces and move it about as needed. Using a larger sheet caused dark smudges where I would hold or rest my hand while tracing.

- Reuse the graphite paper. You'll be surprised how many times you can use it!

- You can use a pencil to trace it, but your pattern won't be reusable for long. If it's not a complicated pattern, use a stylus, available at most craft stores.

- Use a LIGHT touch when tracing. If you press down hard, you will compress the wood fibers. This could 'direct' your tip when burning, and if you want to make a change to the design, you could end up with that 'line' showing.

Burning:

Having a scrap piece of the project wood is a necessity!

- Use a light touch – the nibs are fragile and will bend/distort/break if you use too much pressure.

- Always pull the pen toward you turning the piece as necessary. You will have more control.

- Practice a bit of the design to make sure the nib can make the arc or line you want.

- Work in batches to cut down on pen/nib changes. Work does not have to be consecutive.

- Use the scrap piece as a temp checker as you work. I constantly use the scrap piece to make sure that my nib temp is where I think it is – as I work, if a breeze blows through the shop, if I turn the unit off/on, clean the tip or even if I pause for a couple of minutes with the unit on the temperature will change.

- How fast you move will affect the degree of burn that you achieve. You may start out with the shade of burn that you want, but if you move too quickly the nib will cool off and the shade will be much lighter.

- When burning a repetitious pattern such as shading or stippling, session continuity is important. When you take a break – short of overnight, you may find it hard to resume the same "rhythm" and it's possible the temperature will different. If it will be necessary for you to stop and start, keep the edges a random wave. It is much harder to detect than a straight line.

- If you're trying to achieve a random pattern, it's often better to work in varying circles than covering the area with a systematic grid. Without realizing it, you'll find yourself lining up the soldiers in nice neat rows.

- Clean your nib as you work. I use a brass brush while working to get rid of any built up carbon. Do it as often as you think you need. If you don't do it often enough, you will see a drop in the nib temperature and possibly carbon bits dropping off as you work. I also use a leather strop to clean and sharpen some of the nibs – skews, spears, chisels and knife nibs.

Design:

Basic elements of design:

- Line — the visual path that enables the eye to move within the piece
- Shape — areas defined by edges within the piece, whether geometric or organic
- Color — hues with their various values and intensities
- Texture — surface qualities which translate into tactile illusions
- Tone — Shading used to emphasize form
- Form — 3-D length, width, or depth
- Space — the space taken up by (positive) or in between (negative) objects
- Depth — perceived distance from the observer, separated in foreground, background, and optionally middle ground

Notes: