

Embellishments for Woodturnings

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Embellishments or Surface Design

- Pyrography (wood burning) and Branding
- Piercing
- Many other possibilities: Carving, Air-brushing, Metal Leaf & Patination, etc.
- Something new you have thought of!
- Embellishment need not cover an entire piece

Simple Form Accentuation with Black Gesso

- No surface embellishment is a substitute for good form
- Work on developing pleasing forms in your turnings
- Accentuate them with a Black or Dark Coloring
- Black Gesso – traditionally used to prime the surface of a canvas for painting, making the surface slightly textured
- Sanded smooth and top-coated



Pyrography & Branding

“Drawing with fire”

- General wood burning power supply and pens for drawing on pieces, minor surface decoration and shading
 - Fixed or replaceable-tip pens
 - Can be used to outline areas to be pierced or to add character to the surface of a piece
 - Want PS to work well at low burning temperatures
 - Optima, Razor Tip, Detailmaster, etc.
- High power supply and pens, substantial tips for branding
 - Home-made supply from battery charger or computer power supply – recovers fast
 - Ni-chrome wire for custom brand/pen tips (mcmaster.com – McMaster-Carr)
 - Partial designs or complete surface coverage
 - Black color can accentuate and highlight form
 - High power burning can be used as a pseudo-carving technique
- Fan to blow smoke away or air filter to capture smoke
- Clean tips of carbon regularly – wire brush/blade for branding tips
- Hone tips to maintain sharp edge – honing compound on leather strop



Some Example Pyrography Patterns

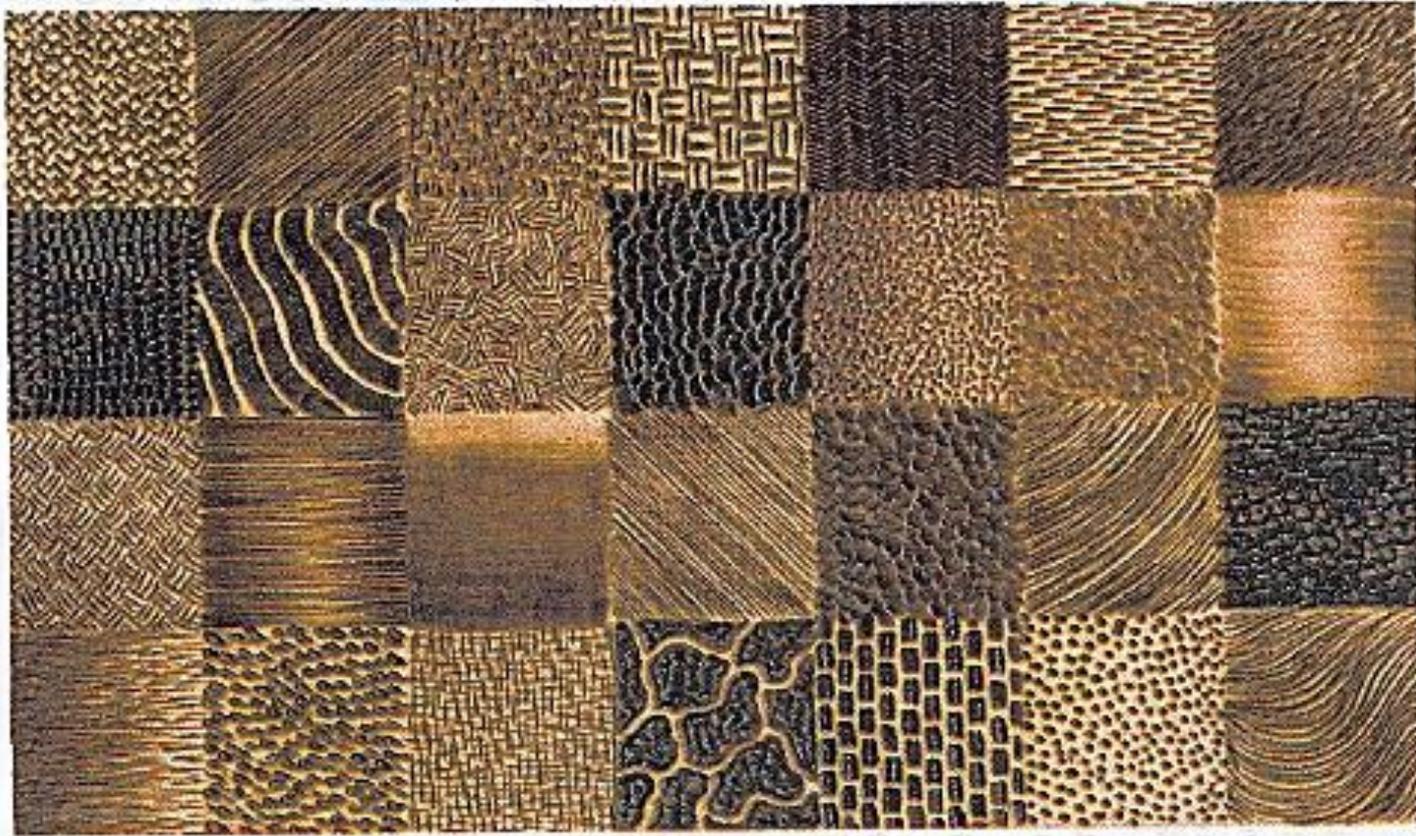


Image from pyrographer Sue Walters

Piercing

- High-speed, air-powered tools (350,000 – 400,000 rpm)
 - Air regulator and filter (~35-40 psi)
 - Dental tool (oil lubed) – more cumbersome connections
 - NSK Presto (no lube) – allows for “drawing” on wood
- Small burs (solid carbide, 1/16”)
 - Straight cross-cutting for piercing and scratching (699L)
 - Round balls for stippling (#1,2,4,6...)
 - Inverted cone for recessing and surface carving (#37, 39...)
 - Soft metal to clean burs (brass, soft steel)
 - Sources of burs & tools:
 - Bursforcarving.com (J. Paul Fennell)
 - Binhpho.com (Binh Pho)



699L



#2

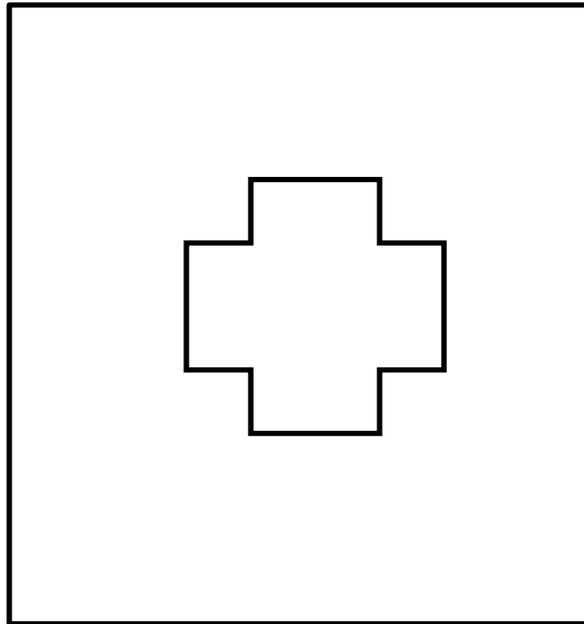


#37

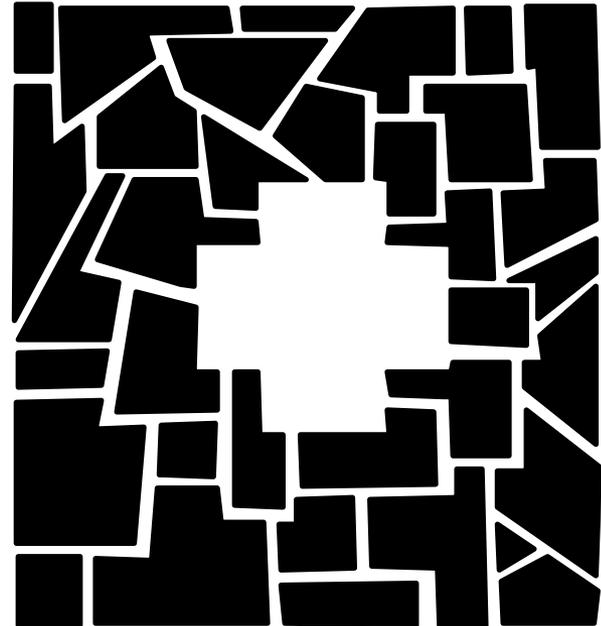
Piercing Technique

- Thin walls required
 - 1/16" to 3/32"
 - Tool must stay perpendicular to surface being pierced - especially on more severely curved forms
 - Cut in CW direction and clean-up in CCW direction
- Design entire turned piece first before doing any work with the tools
- Draw design in pencil, trace with graphite paper or transfer via xylene pen and then burn in prior to piercing, as necessary

Positive Dominant Piercing

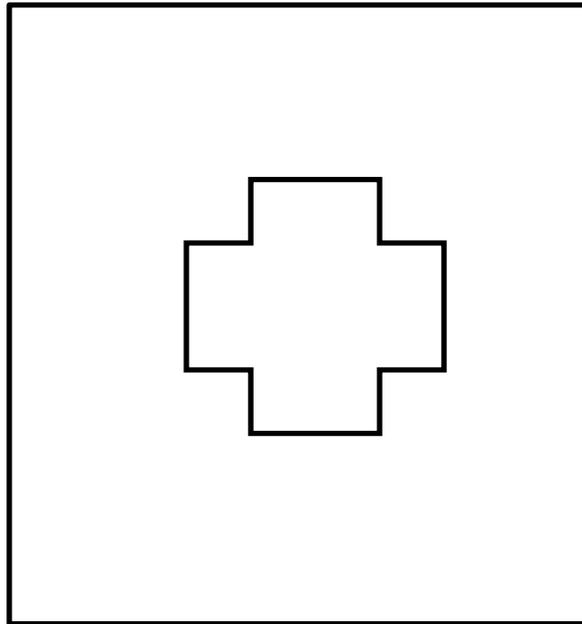


Black = Pierced
White = Wood

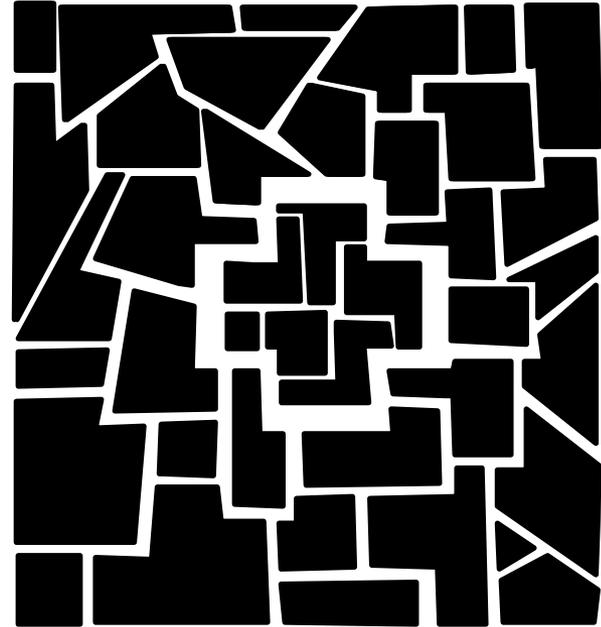


- Pierce right up to outline of object
- Avoid running lines within pierced shapes
- Pierced shapes in character with object (i.e. sharp edged pierced holes with more angular object)
- Shape of object is revealed as solid wood within matrix of pierced holes
- Can also design so that pierced portions are mostly wood (i.e. positive dominant)

Negative Dominant Piercing



Black = Pierced
White = Wood



- Shape of object is revealed as outline of solid wood within matrix of pierced holes
- Closer look reveals hidden design elements



Carving

- Many options:
 - By hand with carving chisels
 - Slower speed/more aggressive with Flexshaft-type tool (20,000 rpm)
 - Moderate speed with Micromotor-type tool (50,000 rpm)
 - Use an engraver for very subtle textures
 - Carve with high-powered woodburner
- Can do intricate designs or simple surface textures
- Create textures that can then be painted

Carving

- Start with good form – can't fix bad form
- Want walls to finish at least 1/8" thick after carving – generally turn to 1/4" – 3/8" thick
- Stop cuts first, then remove background, then detail objects
- Backgrounds can be made smooth or textured

Tools/Bits

- Motorized Carvers; www.woodcarverssupply.com
 - Mastercarver Micropro
 - Mastercarver Flexshaft or Foredom
- Hand chisels; Woodcraft or Wood Carvers Supply
- Burs; www.mdiwoodcarvers.com
 - Stump cutter #20-B5
 - Mini stump cutters # 21-SET36 and # 21-SET39
 - Diamond cutter set #17-20SET
 - Typhoon bur # 37- 3F1Y, or
 - Kutzalls bur #12-3F1

Air Brushing

- Dual-action airbrush
 - Pushing down releases air, then pulling back releases paint
 - Air regulator and filter (~25- 30 psi)
- Mainly use transparent colors - Golden Paints are best
- Transfer images with graphite paper, xylene pen, or just draw
- Burn in lines as desired
- Low tack frisket and tapes as masking
- Cut all lines in masking before spraying
- Apply transparent paints dark to lighter – finish with shading gray for accents/shadows



Gilding and Patination

Involves 6 steps:

- Seal the wood, add color, size the surface, apply gilding, chemically treat the gilding to create patinas, and finally, top-coat the surface for protection
- Must size the work before applying leaf (traditional oil-size works best)
- Silver leaf, Copper leaf, Dutch metal (faux gold leaf) – each take chemicals differently

Gilding and Patination

- Patina chemicals are mild acids that will change the color of metal leaf (silver, copper, and Dutch metal). The intensity of the color may be controlled by how much and how long acid is applied

CHEMICALS AND THEIR EFFECTS

- Potash sulfurated (liver of sulphur) turns true silver leaf a gold tone, then magenta, blue, and finally black (with time)
- Barium sulfide turns copper leaf purple
- Sodium sulfide turns copper leaf orange, then magenta, and finally blue. Also turns Dutch metal orange, then magenta, and finally blue-green or gold-green
- Equal amounts of cupric nitrate and ammonium chloride turn Dutch metal to a green, chalky-bronze patina.



Links

- Greame Priddle battery charger woodburner and pens:
 - <http://www.woodturnersresource.com/extras/projects/priddle/WoodBurner.html>
- Alternate source for homemade pens:
 - [http://www.fishcarver.com/images/burning instructions.PDF](http://www.fishcarver.com/images/burning%20instructions.PDF)
- Gilding and Patination
 - David Marks article in Fine Woodworking; June 2004
 - Chemicals; The Compleat Sculptor; <http://www.sculpt.com>
 - Metal Leaf; Hobby Lobby, Michaels