LAMINATING AND SHAPING WOOD: A SCULPTURAL ADVENTURE
WITH MICHAEL COOPER
October 21-25, 2019

What students should bring

- Miscellaneous
  - Safety glasses and/or face shield
  - A good dust mask (3M makes one for around $20)
  - A heavy sweat shirt
  - Heavy gloves
  - Apron, if you like

- Tools
  - 4½” right angle (electric) grinder with rubber or plastic backing pad for sanding discs
    - **Note**: if you can bring one tool, this is the one! I prefer Metabo (best), Bosch (good), and others such as Milwaukee and DeWalt are good, too. If you have or buy this tool, bring one 50 & 80 grit 4 1/2” discs.
  - Other accessories that you might bring and that I will demo are:
    - Arbortech carving disk (from Woodcraft – industrial pro kit #128258 @ $164.99) and a tungsten King Arthur Brand #149989 Holey Galahad See-Thru disc (Woodcraft: $89.99; Amazon: $64)
      - These are both great tool accessories. Bring them if you can afford them or check out how useful they can be at the workshop first.
  - #50 Nicholson rasp: a fine rough rasp for blending after grinding and before sanding
  - I will bring a variety of tools which you are welcome to use during the workshop
**Class Schedule**
Each day will be a combination of instructor demonstration and time for students to work on their own laminations and carving techniques. I want to get to know you and your interests in one-on-one time. Please bring photo examples of your work to share with me and others. I will show a number of examples of designing with various bent laminations via slides and still images.

**1st Day**
- Instructor & Student Introductions
  - Woodworking/Art Experience
  - Photos/Slides of previous work
- Techniques: jigs & their applications, including safety tips
  - Table saw wood strips
  - Band saw/Planer applications
  - Using thick veneer w/table saw
  - Simple jig
    - Plywood, nails, bender stick or metal
  - Band saw, disc & spindle sander
  - Adhesives: PVA, yellow, plastic resin, epoxy, resorcinol
- Demonstrations:
  - Two or three laminations
  - Model making
    - Paper
    - Wire
    - Veneer
    - Sculpey clay
    - Tape & hot glue
- Discussion: Student Projects

**2nd Day**
- Demonstrations:
  - Continue with lamination from 1st day
  - Shaping: hand, air & electric tools methods
- Hands on
  - Model making for student project
  - Prepare jig & stock for project
- Demonstration
  - Stack lamination
3rd Day
- Demonstration
  - 2nd jig
  - Bolts & bondo
- Hands on
  - Stack laminate
  - Shaping w/Arbortech, tungsten carbide, various air tools & abrasives
- Demonstrations:
  - Drawing/rendering
  - Special tricks & making laminates really round
  - Pep talk on creativity
  - Steam bending

4th Day
- Discussion and slides regarding combining steel and aluminum with wood
- Demonstrations
  - Metal Lathe
  - Bridgeport Vertical Milling Machine
  - T.I.G. Welding
- This will be new at the Marc Adams School but I have used these tools for almost 40 years in my classes and personal work.

5th Day
- Hands-on
  - Michael will be working with students on their individual projects in an effort to gain a good understanding of the range of carving & shaping techniques using quick, accurate & safe applications.

Note: This schedule is a general plan. Events during the week may vary slightly in order.